Bosch DCN Wireless Discussion System
Data Brochure

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Introduction

Wireless Discussion System

Innovation

Bosch brings innovation to the congress world, with its new state-of-the-art and user-friendly Wireless Discussion System. Suitable for both small and large venues, the Bosch DCN Wireless Discussion System offers organizations unparalleled functionality and flexibility. Featuring an award-winning Wireless Access Point (WAP) that is easy to position, as well as separate battery packs for simple charging and changing, the DCN Wireless Discussion System is designed with the user in mind, whether that user is a system administrator, chairman or participant.

Maximum flexibility

Conferences and seminars can be set up with a great degree of freedom due to the Bosch DCN Wireless System's flexible design. The WAP can be mounted on a wall, ceiling or tripod, and is easily positioned for best technical or aesthetic effect. Individual wireless discussion units can be added or rearranged by simply picking them up and moving them. With minimal time required for set-up or break-down, multiple events can be planned in sequence with virtually no delays. The DCN Wireless System gives great support to conferences and seminars anywhere people meet.

Range of equipment

The Bosch DCN Wireless Discussion product line includes:

- Wireless Discussion Units
- Wireless Access Point (WAP)
- a central control unit
- congress control software
- information displays and installation equipment
- simultaneous interpretation and optional language distribution equipment

The system can be further complemented by external equipment such as PCs, monitors, power amplifiers, loudspeakers and printers, all of which are easily integrated into the DCN Wireless Discussion System.

Wireless Discussion System

Contribution equipment

Contribution equipment refers to the units that participants use to take part in a conference. Depending on the type of contribution unit used, participants can listen, speak, and take part in electronic voting. The wireless discussion units are designed for all kinds of gatherings and meetings and offer a high level of functionality, digital convenience, and distinctive styling. The basic discussion unit has a microphone with an on/off button and status indicators; more advanced units have dual discussion possibilities (for two participants) and voting functionality. All discussion units can be configured as a chairman unit.

Superb Sound and Speech Quality

The sound quality of the DCN Wireless System is first rate – up to 20 kHz. Each robust unit produces crystal-clear sound due to a very high signal-to-noise ratio. Units are also protected against interference from other mobile equipment using WiFi, Bluetooth or microwave signals. Being a mobile phone-proof system, participants can leave their mobile phones switched on during meetings without disrupting the discussion system signal.

Easy maintenance

Simple battery maintenance is essential for a wireless system. The Bosch DCN Wireless System ensures that battery power is available when needed. Discussion units use lithium-ion batteries with little or no charge degradation during their long life. A fully charged battery lasts approximately 20 hours, which is far longer than most meetings or conferences. Batteries have a short recharge time – as little as a few hours – and only the battery packs need to be removed; the discussion units can remain in place. Furthermore, each unit has a patent-pending “sleep mode” to conserve power consumption during longer breaks,. And, with the remote overview available via the Congress Control Software, an administrator can view the power consumption status of all active discussion units.

Secure and stable communication

All signals within the DCN Wireless System are digitally protected against tapping or eavesdropping. The intelligent system even features automatic subscription blocking.

Further subscriptions are prevented, even if the administrator forgets to close the subscription process.

The WAP is linked to the WCCU using Bosch's proprietary optical network, which provides digital optical communication and power supply over a single cable. The second optical network connector on the WAP allows the system network to be expanded from a single branch to a redundant loop configuration. In this ‘loop-through’ configuration, DCN Wireless can be interfaced with compatible Bosch equipment such as Audio Expanders, CobraNet™ interfaces and the Integrus language distribution system.

Secure wireless communication between the WAP and the discussion units is in the 2.4 GHz band, which is license-free worldwide.

Central control equipment

The Bosch Wireless Central Control Unit (CCU) is the heart of the congress management system. The CCU can operate stand-alone to provide automatic conference control, or be administered by an operator via a PC if more extensive management is required. All CCUs can control up to 150 discussion units (such as delegate and chairman units) and up to 93 Interpreter desks.

Fully automatic conference proceedings

In basic mode, the CCU automatically manages conference proceedings and does not require operator control. It provides basic microphone management, simultaneous interpretation with up to 32 high-quality audio channels including floor and voting facilities. This effectively allows unsupervised control of even large, international conferences.

Operator control via a PC

Although the CCU offers basic functionality automatically, there is extended functionality with operator control via a PC. Specially developed Bosch Congress Control Software is easy to install and gives precise control over the Bosch DCN Wireless Discussion System. Highly user-friendly, the discussion unit icons of the synoptic control interface are easily assigned to various operating functions. Operators can view on/off status of each unit, the identity of its user, and many other key properties. The software has a Windows™ look and feel and allows on-the-spot coverage testing of whether all the units are correctly receiving the signal. If voting units are used, results can be shown on a large display screen and logged if desired. The software is optimized for touch screens, and features a multi-lingual graphical user interface (GUI). If the PC fails, the CCU will revert to a default operation enabling conference proceedings to continue.

Advanced audio coupling

It is possible to extract and insert both digital (AES/EBU or SPDIF) and analog audio. Other advanced audio coupling techniques include CobraNet™, a system which allows distribution of many real-time, high-quality digital audio channels over an Ethernet network using CAT5 cables. Made up of software, hardware and a network protocol, CobraNet™ makes it easy to distribute audio in buildings and connect the Bosch DCN Wireless Discussion System to other audio CobraNet™ compatible devices such as Audio Recorders and Audio Mixers.

Simultaneous interpretation and language distribution equipment

The DCN Wireless Discussion System supports simultaneous interpretation via Bosch Interpreter desks. Integrus, a digital and wireless infrared language distribution system, is connected to the optical network and enables sound to be distributed reliably across 32 channels via the Integrus infrared digital transmitter. Equipped with individual Integrus receivers, participants can receive their language channel while moving around freely, without any loss of contact or quality.

Interpreter Desk for multi-lingual sessions

The Bosch DCN Next Generation Interpreter Desk accommodates up to 32 high-quality audio channels, all with an audio-bandwidth of 20 kHz. Up to six desks can be installed per interpreter booth. Each desk can be used stand-alone or as part of a system. When used stand-alone, the desk's built-in microprocessor is manually programmed to allocate language channels, channel routing and interlocks.

Delegate with Wireless Discussion Unit

Integrus IR digital technology

Integrus incorporates IR digital technology that conforms to IEC 60603 part 7. IR digital technology ensures maximum sound quality with a signal-to-noise ratio of 80 dB. Integrus also incorporates a special operation mode to couple rooms. This means that multiple systems, located in separate rooms, can provide exactly the same language. For more information about Integrus, see the Integrus Data Brochure.

Information screens

Information screens are ideal for quick and effective information distribution to many conference participants. A display shows the image of the current speaker, who has the floor, and who has a request to speak. Displays also show results when voting is used.

Automatic camera control

The system can automatically show an image of the current speaker on monitors or projection screens in the main hall, lobby, interpreters' booths, breakout rooms or anywhere else required. Delegate information appears along with the image. For a general overview of all delegates the system can switch to fixed-angle cameras.

Camera control and configuration is automatic, so the system can be run without an operator. Bosch Auto- Dome cameras are ideal for this application and especially useful when video conferencing between sites.

Camera control ensures that participants always have appropriate details on the current speaker.

Example 1 - Discussion

The wireless system can be adjusted to meet any discussion requirement: from a basic set-up requiring no operator to a fully interactive voting arrangement.

Shopping List	
1.	Bosch Wireless Central Control Unit
2.	Personal computer with Bosch DCN Control Software
3.	Bosch Battery Pack Charger
4.	Bosch Wireless Access Point
5.	Bosch Dual Wireless Discussion Unit

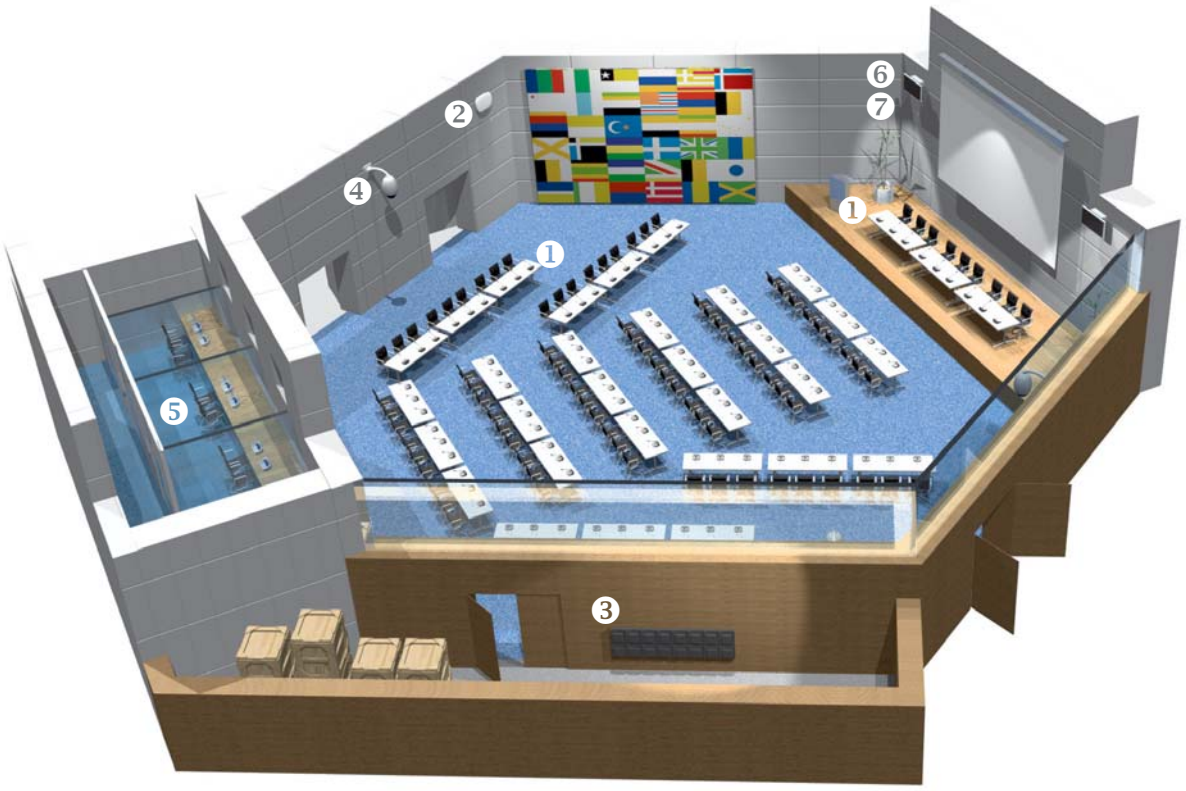
Example 2 - Electronic Voting

For interactive situations where polling and voting are important, discussion units with voting functionality can be used in the DCN Wireless Discussion System.

Shopping List	
1.	Bosch Wireless Discussion Unit with Voting (delegate/chairman mode)
2.	Bosch Wireless Central Control Unit
3.	Personal computer with Bosch DCN Control Software
4.	Large Screen
5.	Bosch Wireless Access Point
6.	Bosch Battery Pack Charger

Example 3 - Interpretation

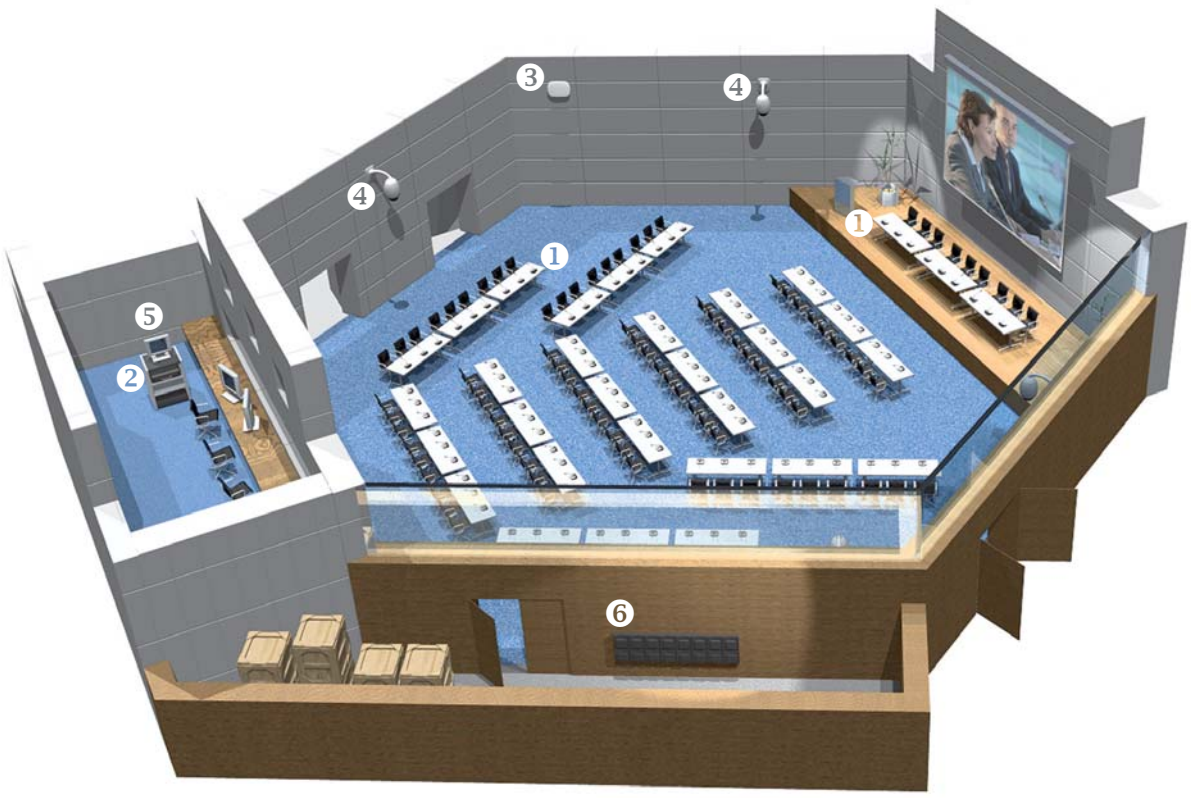
Interpreters are located in soundproof booths and are equipped with Bosch interpreter units. In combination with the DCN Wireless Discussion System, the Integrus System allows sound to be digitally distributed and received in CD HiFi audio quality.



Shopping List	
1.	Bosch Wireless Discussion Unit
2.	Bosch Wireless Access Point
3.	Bosch Battery Pack Charger
4.	Bosch Autodome Camera
5.	Interpreter Desk
6.	Bosch Integrus digital infrared language distribution system
7.	Infrared radiator

Example 4 - Camera Control

The system can automatically show an image of the current speaker on monitors or projection screens. Delegate information appears along with the image. For a general overview of all delegates the system can switch to fixed-angle cameras. Camera control and configuration is automatic, so the system can be run without an operator.



Shopping List	
1.	Bosch Wireless Discussion Unit
2.	Bosch Wireless Central Control Unit
3.	Bosch Wireless Access Point
4.	Bosch Autodome Camera
5.	Personal computer with Bosch DCN Control Software
6.	Bosch Battery Pack Charger

DCN-WD-D Wireless Discussion

The unit also accommodates two headphone connections, so the speaker can be heard clearly even with excessive background noise. To prevent acoustic feedback the built-in loudspeaker is muted when the microphone is on. If enabled, the headphones volume is also automatically reduced to prevent acoustic feedback when the microphone is on.

Rims are available in a range of colors to match the interior (DCN-DISR, to be ordered separately).

The unit can be used as a delegate unit or as a chairman unit (DCN-DISBCM chairman buttons to be ordered separately).

Simple battery maintenance is essential in a wireless system. A unique feature of Bosch's wireless discussion units are the separate rechargeable battery packs (DCN-WLIION, to be ordered separately). These Lithium-ion battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

Features

- Used as delegate or chairman unit
- Separate battery pack, easy to change and charge
- Advanced power saving techniques
- Low susceptibility to electromagnetic interference
- Auto microphone-off
- Auto-search for own network
- Auto switch-off when out of range

To the participant the most important part of a conference system is the discussion unit. Bosch has built on the elegant design of the DCN Next Generation discussion units to create a new series of wireless discussion units with unrivalled looks and features.

Maximum speech intelligibility is guaranteed at all times. Operating in the 2.4 GHz (license free) band the wireless discussion units produce crystal-clear sound due to a very high signal-to-noise ratio. The system is also protected against interference from other wireless equipment such as mobile phones, Bluetooth devices and WiFi networks.

Wireless communication means extra security considerations. The DCN Wireless system and discussion units therefore feature multiple-layer protection to prevent eavesdropping and unauthorized access. Digital protection ensures the information within the system remains confidential.

The DCN-WD-D Wireless Discussion Unit enables participants to speak, register a request-to-speak, and listen to the speaker.

A socket is provided to connect the pluggable microphones which are available in short and long stem versions (DCN-MICS and DCN-MICL, to be ordered separately).

Functions

Controls and Indicators

On front

- Microphone button with a red or green illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted
- Headphone volume control buttons

On rear

- Out-of-range indicator
- Battery low indicator

Under base

- Recessed ‘De-init’ switch
- Mode select switches (delegate, chairman, etc.)

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm (0.14 in) headphone sockets stereo jack type
- DC power input from DCN-WPS (accessible when battery pack is removed)

Technical Specifications

Electrical

Frequency response	30 Hz - 20 kHz
Headphone load impedance	> 32 ohm< 1k ohm
Output power	2 x 15 mW/32 ohm

Mechanical

Mounting	Tabletop
Dimensions (H x W x D) without microphone	61 x 190 x 160 mm (2.4 x 7.5 x 6.3 in)
Weight	
without battery	485 g (1.07 lb)
with battery	700 g (1.54 lb)

Mechanical

Color top	Silver (RAL 9022)
Color base	Charcoal (PH 10736)

Ordering Information

DCN-WD-D Wireless Discussion pluggable microphone, dark base, wireless	DCN-WD-D
DCN-MICS Pluggable Short Microphone length 310 mm (12.2 inch)	DCN-MICS
DCN-MICL Pluggable Long Microphone length 480 mm (18.9 inch)	DCN-MICL
DCN-DISRH-SR Rim High Gloss Silver (10 pcs) silver, high gloss, set of 10	DCN-DISRH-SR
DCN-DISR-SR Rim Silver (10 pcs) silver, set of 10	DCN-DISR-SR
DCN-DISR-D Rim Dark (10 pcs) dark, set of 10	DCN-DISR-D
DCN-DISRMH Rim Metal High Gloss (10 pcs) metal, high gloss, set of 10	DCN-DISRMH
DCN-DISRMS Rim Metal Semi Gloss (10 pcs) metal, semi gloss, set of 10	DCN-DISRMS
DCN-DISBCM Buttons Chairman (10 sets) set of 10	DCN-DISBCM
DCN-WLIION-D Battery Pack for Wireless Discussion charcoal color, lithium-ion, 7.2 VDC, 4800 mAh	DCN-WLIION-D
DCN-WPS Power Supply for Wireless Discussion powers wireless discussion units if no battery pack is present	DCN-WPS
DCN-WFCD10 Flight Case for 10 Wireless Discussion light grey, holds 10 wireless discussion units and 2 charging units	DCN-WFCD10

DCN-WDD-D Wireless Dual Discussion

Features

- Two separate headphone connections with individual volume control
- Useable as single/dual delegate or chairman unit
- Separate battery pack, easy to change and charge
- Advanced power saving techniques
- Low susceptibility to electromagnetic interference
- Auto microphone-off
- Auto-search for own network
- Auto switch-off when out of range

To the participant the most important part of a conference system is the discussion unit. Bosch has built on the elegant design of the DCN Next Generation discussion units to create a new series of wireless discussion units with unrivalled looks and features.

Maximum speech intelligibility is guaranteed at all times. Operating in the 2.4 GHz (license free) band, the wireless discussion units produce crystal-clear sound due to a very high signal-to-noise ratio. The system is also protected against interference from other wireless equipment such as mobile phones, Bluetooth devices and WiFi networks.

Wireless communication means extra security considerations. The DCN Wireless system and discussion units therefore feature multiple-layer protection to prevent eavesdropping and unauthorized access. Digital protection ensures the information within the system remains confidential.

The DCN-WDD-D Wireless Dual Discussion Unit enables participants to speak, register a request-to-speak, and listen to the speaker.

A socket is provided to connect the pluggable microphones which are available in short and long stem versions (DCN-MICS and DCN-MICL, to be ordered separately).

The unit also accommodates two separate headphone connections with individual volume control on either side of the unit, allowing one unit to serve two delegates. It can be converted to a full dual-use unit by replacing the microphone button with two separate buttons for individual microphone control and individual delegate identification (DCN-DISBDD dual-use buttons, to be ordered separately).

To prevent acoustic feedback the built-in loudspeaker is muted when the microphone is on. If enabled, the headphones volume is also automatically reduced to prevent acoustic feedback when the microphone is on.

Different rims are available to allow matching with the interior (DCN-DISR, to be ordered separately).

The unit can be used as:

- a single delegate unit
- a dual delegate unit
- a chairman unit (DCN-DISBCM chairman buttons, to be ordered separately)
- a single delegate unit with auxiliary button (to be used as an usher call, for example).

Simple battery maintenance is essential in a wireless system. A unique feature of Bosch's wireless discussion units are the separate rechargeable battery packs (DCN-WLIION, to be ordered separately). These Lithium-ion battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

Functions

Controls and Indicators

On front

- Microphone button with a red or green illuminated ring (red indicates microphone is active, green indicates request-to-speak accepted)*
- Two individual headphone volume control buttons

On rear

- Out-of-range indicator
- Battery low indicator

Under base

- Recessed ‘De-init’ switch
- Mode select switches (delegate, chairman, etc.)

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm (0.14 in) headphone sockets stereo jack type
- DC power input from DCN-WPS (accessible when battery is removed)

* When unit is used in Dual Delegate mode, this function is available individually.

Technical Specifications

Electrical

Frequency response	30 Hz - 20 kHz
Headphone load impedance	> 32 ohm< 1k ohm
Output power	2 x 15 mW/32 ohm

Mechanical

Mounting	Tabletop
Dimensions (H x W x D) without microphone	61 x 190 x 160 mm (2.4 x 7.5 x 6.3 in)
Weight	
without battery	500 g (1.10 lb)
with battery	715 g (1.57 lb)
Color top	Silver (RAL 9022)
Color base	Charcoal (PH 10736)

Ordering Information

DCN-WDD-D Wireless Dual Discussion dual delegate, pluggable microphone, dark base, wireless	DCN-WDD-D
DCN-DISBDD Buttons Dual Use (10 sets) set of 10	DCN-DISBDD
DCN-MICS Pluggable Short Microphone length 310 mm (12.2 inch)	DCN-MICS
DCN-MICL Pluggable Long Microphone length 480 mm (18.9 inch)	DCN-MICL
DCN-DISRH-SR Rim High Gloss Silver (10 pcs) silver, high gloss, set of 10	DCN-DISRH-SR
DCN-DISR-SR Rim Silver (10 pcs) silver, set of 10	DCN-DISR-SR
DCN-DISR-D Rim Dark (10 pcs) dark, set of 10	DCN-DISR-D
DCN-DISRMH Rim Metal High Gloss (10 pcs) metal, high gloss, set of 10	DCN-DISRMH
DCN-DISRMS Rim Metal Semi Gloss (10 pcs) metal, semi gloss, set of 10	DCN-DISRMS
DCN-DISBCM Buttons Chairman (10 sets) set of 10	DCN-DISBCM
DCN-WLIION-D Battery Pack for Wireless Discussion charcoal color, lithium-ion, 7.2 VDC, 4800 mAh	DCN-WLIION-D
DCN-WPS Power Supply for Wireless Discussion powers wireless discussion units if no battery pack is present	DCN-WPS
DCN-WFCD10 Flight Case for 10 Wireless Discussion light grey, holds 10 wireless discussion units and 2 charging units	DCN-WFCD10

DCN-WDV-D Wireless Discussion Voting

Features

- Five voting buttons
- Usable as delegate or chairman unit
- Separate battery pack, easy to change and charge
- Advanced power saving techniques
- Low susceptibility to electromagnetic interference
- Auto microphone-off
- Auto-search for own network
- Auto switch-off when out of range

To the participant the most important part of a conference system is the discussion unit. Bosch has built on the elegant design of the DCN Next Generation discussion units to create a new series of wireless discussion units with unrivalled looks and features.

Maximum speech intelligibility is guaranteed at all times. Operating in the 2.4 GHz (license free) band the wireless discussion units produce crystal-clear sound due to a very high signal-to-noise ratio. The system is also protected against interference from other wireless equipment such as mobile phones, Bluetooth devices and WiFi networks.

Wireless communication means extra security considerations. The DCN Wireless system and discussion units therefore feature multiple-layer protection to prevent eavesdropping and unauthorized access. Digital protection ensures the information within the system remains confidential.

The DCN-WDV-D Wireless Discussion Unit with Voting enables participants to speak, register a request-to-speak, listen to the speaker, and vote.

A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately).

The unit has five voting buttons. The yellow indicator rings around the voting buttons confirm vote selections.

The unit also accommodates two headphone connections, so the speaker can be heard clearly even in situations with excessive background noise.

To prevent acoustic feedback the built-in loudspeaker is muted when the microphone is on. If enabled, the headphones volume is also automatically reduced to prevent acoustic feedback when the microphone is on.

A socket is provided to connect the pluggable microphones which are available in short and long stem versions (DCN-MICS and DCN-MICL, to be ordered separately).

The unit can be used as:

- a delegate unit
- a chairman unit (DCN-DISBCM chairman buttons to be ordered separately)
- a delegate unit with auxiliary button (can be used as an usher call for example)

Simple battery maintenance is essential in a wireless system. A unique feature of Bosch's wireless discussion units are the separate rechargeable battery packs (DCN-WLIION, to be ordered separately). These Lithium-ion battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

Functions

Controls and Indicators

On front

- Five voting buttons with indicator rings around the buttons
- Unit activity / delegate presence indicator
- Microphone button with a red or green illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted
- Headphone volume control buttons

On rear

- Out-of-range indicator
- Battery low indicator

Under base

- Recessed ‘De-init’ switch
- Mode select switches (delegate, chairman, etc.)

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm (0.14 in) headphone sockets stereo jack type
- DC power input from DCN-WPS (accessible when battery is removed)

Technical Specifications

Electrical

Frequency response	30 Hz - 20 kHz

Electrical

Headphone load impedance	> 32 ohm< 1k ohm
Output power	2 x 15 mW/32 ohm

Mechanical

Mounting	Tabletop
Dimensions (H x W x D) without microphone	61 x 190 x 160 mm (2.4 x 7.5 x 6.3 in)
Weight without battery with battery	 505 g (1.11 lb) 720 g (1.58 lb)
Color top	Silver (RAL 9022)
Color base	Charcoal (PH 10736)

Ordering Information

DCN-WDV-D Wireless Discussion Voting voting, pluggable microphone, dark base, wireless	DCN-WDV-D
DCN-DISBDD Buttons Dual Use (10 sets) set of 10	DCN-DISBDD
DCN-MICS Pluggable Short Microphone length 310 mm (12.2 inch)	DCN-MICS
DCN-MICL Pluggable Long Microphone length 480 mm (18.9 inch)	DCN-MICL
DCN-DISRH-SR Rim High Gloss Silver (10 pcs) silver, high gloss, set of 10	DCN-DISRH-SR
DCN-DISR-SR Rim Silver (10 pcs) silver, set of 10	DCN-DISR-SR
DCN-DISR-D Rim Dark (10 pcs) dark, set of 10	DCN-DISR-D
DCN-DISRMH Rim Metal High Gloss (10 pcs) metal, high gloss, set of 10	DCN-DISRMH
DCN-DISRMS Rim Metal Semi Gloss (10 pcs) metal, semi gloss, set of 10	DCN-DISRMS
DCN-DISBCM Buttons Chairman (10 sets) set of 10	DCN-DISBCM
DCN-WLIION-D Battery Pack for Wireless Discussion charcoal color, lithium-ion, 7.2 VDC, 4800 mAh	DCN-WLIION-D
DCN-WPS Power Supply for Wireless Discussion powers wireless discussion units if no battery pack is present	DCN-WPS
DCN-WFCD10 Flight Case for 10 Wireless Discussion light grey, holds 10 wireless discussion units and 2 charging units	DCN-WFCD10

DCN-MICS/L Pluggable Microphone Short/Long Stem

Features

- Uni-directional microphone on adjustable stem
- Built-in plop and windshield

The innovative, stylish and ergonomically designed microphone with an adjustable stem simply plugs directly into a Discussion unit, Concentus, flush-mounted Microphone Connection panes or Interpreter desk. It has a uni-directional response for optimum performance even in noisy conditions, and has low susceptibility to interference from mobile phones.

Functions

Controls and Indicators

- Red or green illuminator. Red indicates microphone is active, green indicates request-to-speak accepted

Interconnections

- Connector to plug and fasten the microphone

Technical Specifications

Mechanical

Mounting	Plug and fasten into Discussion units, Concentus, flush mounted Microphone connection panels and Interpreter desks
Length	
DCN-MICS	310 mm (12.2 in)
DCN-MICL	480 mm (18.9 in)
Weight	
DCN-MICS	100 g (0.22 lb)
DCN-MICL	115 g (0.25 lb)
Color top	Silver (RAL 9022)

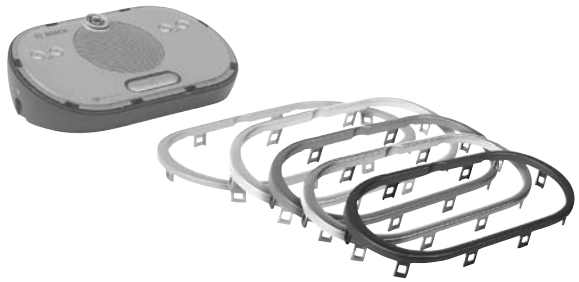
Ordering Information

DCN-MICS Pluggable Short Microphone length 310 mm (12.2 inch)	DCN-MICS

Ordering Information

DCN-MICL Pluggable Long Microphone length 480 mm (18.9 inch)	DCN-MICL

DCN-DISR Rims for Discussion Units



A rim completes the discussion units. A variety of rims with different finishes are available to allow matching with any interior.

Technical Specifications

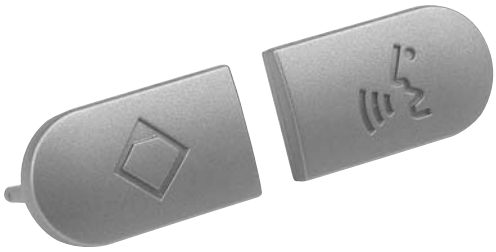
Mechanical

Mounting	Click and fit on any discussion unit
Color base	
DCN-DISRH-SR	Silver (RAL 9022) high gloss
DCN-DISR-SR	Silver (RAL 9022)
DCN-DISR-D	Charcoal (PH 10736)
DCN-DISRMH	High gloss metal
DCN-DISRMS	Semi gloss metal

Ordering Information

DCN-DISRH-SR Rim High Gloss Silver (10 pcs) silver, high gloss, set of 10	DCN-DISRH-SR
DCN-DISR-SR Rim Silver (10 pcs) silver, set of 10	DCN-DISR-SR
DCN-DISR-D Rim Dark (10 pcs) dark, set of 10	DCN-DISR-D
DCN-DISRMH Rim Metal High Gloss (10 pcs) metal, high gloss, set of 10	DCN-DISRMH
DCN-DISRMS Rim Metal Semi Gloss (10 pcs) metal, semi gloss, set of 10	DCN-DISRMS

DCN-DISBCM Buttons Chairman (10 sets)



DCN-DISBCM buttons for Chairman Discussion Units replace the single microphone button on a discussion unit when used in chairman mode. These buttons can also be used for the discussion unit in auxiliary control mode.

Technical Specifications

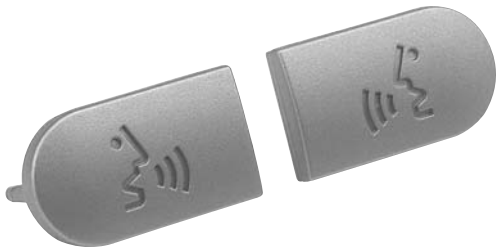
Mechanical

Mounting	Click and fit on any Discussion unit
Color	Silver (RAL 9022)

Ordering Information

DCN-DISBCM Buttons Chairman (10 sets) set of 10	DCN-DISBCM

DCN-DISBDD Buttons Dual Use (10 sets)



DCN-DISBDD buttons for Dual Use Discussion Units replace the single microphone button on a discussion unit when used in dual delegate mode.

Technical Specifications

Mechanical

Mounting	Click and fit on any Discussion unit
Color	Silver (RAL 9022)

Ordering Information

DCN-DISBDD Buttons Dual Use (10 sets) DCN-DISBDD
set of 10

DCN-WPS Power Supply for Wireless Discussion

Features

- Powers wireless discussion units if no battery pack is present

The DCN-WPS power supply enables wireless discussion units to be used without a battery.

The DCN-WPS does not provide any battery charging capability (a DCN-WCH05 charging unit is required). The unit comes complete with a 1.5 m cable and international mains supply connectors (Euro, UK, Rest of World).

Technical Specifications

Electrical

Rated input voltage	100-240 VAC (50 – 60 Hz), 150 mA
Rated output voltage	9 VDC (500 mA)

Mechanical

Dimensions (H x W x D)	65 x 57 x 28 mm (25.6 x 22.4 x 11 in)
Weight (per package)	approx. 100 g (0.22 lb)
Color	Black

Ordering Information

DCN-WPS Power Supply for Wireless Discussion DCN-WPS
powers wireless discussion units if no battery pack is present

DCN-WAP Wireless Access Point

Features

- Compact and elegant (iF design award winner 2006)
- Single cable for power and communication
- Mountable on ceiling, wall, or floor stand for best reception
- Secure, digitally protected, wireless communication
- Typical range 30 m (100 ft)

The DCN Wireless Access Point (WAP) links the central control unit (WCCU) and the wireless discussion units. To ensure security, data exchange between the WAPs and the wireless discussion units is digitally protected.

The WAP is linked to the WCCU using Bosch's proprietary optical network, which provides digital optical communication and power supply over a single cable. The second optical network connector on the WAP allows the system network to be expanded from a single branch to a redundant loop configuration. In this 'loop-through' configuration, DCN Wireless can be interfaced with compatible Bosch equipment such as Audio Expanders, CobraNet™ interfaces and the Integrus language distribution system.

Secure wireless communication between the WAP and the discussion units is in the 2.4 GHz band, which is license-free worldwide.

The WAP unit's award winning design enables it to be placed unobtrusively on a wall, ceiling, or floor stand by using the universal mounting bracket.

Functions

Controls and Indicators

- LEDs show status of wireless system

Interconnections

- Two optical network connections (second connection can be used in 'loop-through' network)

Installation/Configuration Notes

DCN-WAP mounted on a LBC 1259/00 floor stand

Technical Specifications

Electrical

Power consumption	4 W

Mechanical

Mounting	Ceiling, Wall or Floor Stand (using included bracket)
Dimensions (H x W x D) with bracket	59 x 284.5 x 201 mm (2.3 x 11.2 x 7.9 in)
Weight with bracket without bracket	 907 g (2 lb) 643 g (1.4 lb)
Color	Light grey (RAL 000 7500)

Ordering Information

DCN-WAP Wireless Access Point light grey color, universal mounting bracket included	DCN-WAP
DCN-WFCCCU Flight Case for CCU and WAP light grey, holds wireless central control unit(s), access point & cable	DCN-WFCCCU
LBC 1259/00 Universal Floorstand lightweight aluminum construction, foldable, M10 x 12 reducer flange	LBC1259/00

DCN-WCCU Wireless Central Control Unit

Features

- Optical network interface for easy connection
- Single branch or redundant loop networks
- Control for up to 150 wireless discussion units
- Additional control for up to 93 interpreter desks
- Serial ports for PC and camera control

The DCN-WCCU is the brain of the DCN Wireless system. It provides control for up to 150 wireless discussion units and 93 interpreter units.

The WCCU uses Bosch's proprietary optical network for easy connection to the wireless access point and other Bosch congress equipment. Networks can be set-up in single branch or redundant loop configurations, depending on the installed equipment.

For connection to DCN-IDESK interpreter desks, the WCCU has two outlet sockets for DCN trunk-cables.

In combination with a PC and the Conference Control Software (DCN-SWSMV), the WCCU brings greater sophistication to conference control.

Functions

- Optical network to:
  - couple the WCCU to the WAP
  - allow a variety of audio contribution and distribution facilities (can connect to other Bosch congress equipment, such as: Integrus transmitter for infra-red language distribution; Audio Expanders, and CobraNet™ interfaces)
- DCN trunk to connect to DCN-IDESK interpreter desks
- Basic microphone management facilities
- Three operational microphone modes:
  - Open: microphone button control with request-to-speak (Auto)
  - Override: microphone button with override of activated microphones (FIFO)
  - PTT: Push To Talk (push and hold button to speak)
- Up to 4 open microphones (3 for delegates and 1 for the chairman)
- Voting control for parliamentary voting procedure when using PC and DCN-SWSMV software
- Simultaneous interpretation function with up to 31 language channels, plus one floor channel via Integrus language distribution system
- Basic intercom function
- Automatic camera control
- Extended conference facilities when using PC and DCN-SWSMV software
- Adjustable sensitivity for audio inputs and outputs
- Audio insertion facility to connect external audio processing devices or telephone couplers
- Configuration of WCCU and system via a display and a single rotary push button
- Each WCCU can be assigned a unique name by the installer for easy identification
- VU meter readings of audio inputs and outputs (monitored using a headphone)
- 19” (2U) housing for table top or rack mounting
- Handgrips for easy transport

Controls and Indicators

At the front

- Mains on/off switch
- 2 x 16 Character LCD display for status information and CCU configuration
- Rotary control to navigate through the LCD menus

At the rear

- Four red LED overload indicators (2 for the DCN network outputs, 2 for the optical connections)

Interconnections

- Euro mains socket with built-in fuse
- Two DCN outlet sockets to connect DCN-IDESK interpreter desks, plus extension power supplies. Each socket is protected against short-circuit (2 x six-pole circular sockets)
- Two optical network connectors for a Wireless Access Point, Audio Expanders or Integrus TX
- Two three-pole XLR balanced audio line inputs with optional galvanic separation.
- Two stereo Cinch unbalanced audio line inputs
- Two three-pole XLR balanced audio line output with galvanic separation.
- Two stereo Cinch unbalanced audio line outputs
- One headphone output 3.5 mm (0.14”) stereo
- Two RS-232 serial data connectors for controlling PC and diagnostics

Parts Included

Quantity	Component
1	DCN-WCCU Wireless Central Control Unit
1	System installation and user instruction CD-ROM
1	Mains cable, 1.7 m (5.5 ft)
plus:	19” rack mounting brackets, detachable feet and mounting accessories

Technical Specifications

Electrical

Supply voltage	100 - 240 VAC +/- 10 % 50 – 60 Hz
Power consumption	170 W
DCN system supply	40 VDC, max 65 W per DCN socket
Optical network supply	40 VDC, max 65 W
Total supply power	130 W
RS-232 connection	2 x nine-pole Sub-D female socket
Frequency response	30 Hz - 20 kHz (-3 dB at nominal level)
THD at nominal level	< 0.5 %
Cross talk attenuation	> 85 dB at 1 kHz
Dynamic range	> 90 dB
Signal-to-noise ratio	> 87 dBA

Audio inputs

XLR nominal input	12 dBV (+/- 6 dB)
XLR maximum input	+12 dBV
Cinch nominal input	24 dBV (+/- 6 dB)
Cinch maximum input	+0 dBV

Audio outputs

XLR nominal output	12 dBV (+6 / -24 dB)
XLR maximum output	+12 dBV
Cinch nominal output	24 dBV (+6 / -24 dB)
Cinch maximum output	+0 dBV

Mechanical

Mounting	Tabletop or mounted in a 19” rack
Dimensions (H x W x D)	
for tabletop use, with feet	92 x 440 x 400 mm (3.6 x 17.3 x 15.7 in)
for 19” rack use, with brackets	88 x 483 x 400 mm (3.5 x 19 x 15.7 in)
in front of brackets	40 mm (1.6 in)
behind brackets	360 mm (14.2 in)
Weight	7 kg (15.4 lbs)
Color	Charcoal (PH 10736) with silver

Ordering Information

DCN-WCCU Wireless Central Control Unit for all regions except North-America	DCN-WCCU

Ordering Information

DCN-WFCCCU Flight Case for CCU and WAP light grey, holds wireless central control unit(s), access point & cable	DCN-WFCCCU
DCN-WCCU-UL Wireless Central Control Unit UL/ CSA for the North-America region	DCN-WCCU-UL

Accessories

LTC 8200/50 Allegiant Video Switcher rated voltage 220 to 240 VAC (50/60 Hz)	LTC8200/50
LTC 8200/60 Allegiant Video Switcher rated voltage 120 VAC (50/60 Hz)	LTC8200/60
LTC 0455/11 Color Camera 1/3-inch, 540 TVL, PAL, DSP, 12 VDC/24 VAC, 50 Hz	LTC0455/11
LTC 0455/21 Color Camera 1/3-inch, 540 TVL, NTSC, DSP, 12 VDC/24 VAC, 60 Hz	LTC0455/21
LTC 0455/51 Color Camera 1/3-inch, 540 TVL, PAL, DSP, 230 VAC, 50 Hz	LTC0455/51
LTC 0455/61 Color Camera 1/3-inch, 540 TVL, NTSC, DSP, 120 VAC, 60 Hz	LTC0455/61
LTC 8555/00 Compact Full-function Keyboard variable speed joystick	LTC8555/00
G3ACPW2CW Color AutoDome Kit 18x color, indoor pendant, wall mount, clear dome, white, 230 VAC, 50 Hz	G3ACPW2CW
LTC 5136/51 Autodome Controller with 16 outputs for AutoDomes or for Allegiant Receiver/Drivers units, 230 VAC, 50/60 Hz	LTC5136/51
G3ACS5C Color AutoDome Kit 18x color, indoor drop ceiling, clear dome, 24 VAC, 50 Hz	G3ACS5C
LTC 5136/61 Autodome Controller with 16 outputs for AutoDomes or for Allegiant Receiver/Drivers units, 110 VAC, 50/60 Hz	LTC5136/61

DCN-WLIION-D Battery Pack for Wireless Discussion

Features

- Long service life without charge degradation
- 20 hours typical use from a full charge
- Fully recharges in 3 hours
- Built-in microprocessor controls charging cycle
- Lithium-ion technology

This rechargeable battery is the power source of the wireless discussion units.

The battery is a high capacity Lithium-ion type, capable of providing up to 20 hours typical use from a full charge. Fully charging the DCN-WLIION from empty takes just 3 hours.

Lithium-ion cells avoid the charge degradation issues associated with other rechargeable battery types. This offers maximum flexibility for scheduling recharges (no requirement to fully discharge batteries before recharging).

The 'intelligent' battery has a built-in microprocessor to control charging current and prevent overloading.

Functions

Controls and Indicators

- Charge capacity LEDs and push-to-test button

Interconnections

- Power / charge connector

Technical Specifications

Electrical

Output Voltage	7.2 VDC
Capacity	4800 mAh

Mechanical

Dimensions (H x W x D)	61.5 x 136 x 22 mm (2.4 x 5.5 x 0.9 in)
Weight	215 g (0.47 lb)

Mechanical

Color	Charcoal (PH 10736)

Ordering Information

DCN-WLIION-D Battery Pack for Wireless Discussion charcoal color, lithium-ion, 7.2 VDC, 4800 mAh	DCN-WLIION-D
DCN-WCH05 Charger for 5 Battery Packs	DCN-WCH05

DCN-WCH05 Charger for 5 Battery Packs

Features

- Simultaneous charging of up to 5 battery packs
- Recharges from empty in 3 hours
- Loop-through mains connector
- Auto-ranging PSU, 100 – 240 VAC

This unit can simultaneously re-charge up to 5 DCN-WLIION battery packs. The charging status of each pack is shown on individual charge capacity indicator LEDs.

The unit is suitable for tabletop use, or can be wall-mounted.

The loop-through mains voltage connector allows a maximum number of charging units to be connected in series to share from the same mains outlet:

- A maximum 5 chargers can be connected in series for 100 - 127 VAC, 50 - 60 Hertz regions
- A maximum 10 chargers can be connected in series for 220 - 240 VAC, 50 - 60 Hertz regions

Functions

Controls and Indicators

- Charge capacity indicator LEDs on each bin
- Mains power indicator LED

Interconnections

- Mains supply connector
- Loop-through mains connector
- Battery pack charging connector

Technical Specifications

Electrical

Supply Voltage	100 - 240 VAC +/- 10 % 50 – 60 Hz
Maximum power consumption	190 W

Mechanical

Dimensions (H x W x D)	340 x 195 x 82 mm (13.4 x 7.6 x 3.2 in)
Weight (without batteries)	1.4 kg (3.08 lb)
Color	Charcoal (PH 10736)

Ordering Information

DCN-WCH05 Charger for 5 Battery Packs	DCN-WCH05

DCN-WFCD10 Flight Case for 10 Wireless Discussion

Features

- Holds 10 wireless discussion units and microphones
- Also holds 2 battery chargers and 10 batteries
- Robust construction with reinforced corners
- Easy to carry and store
- Shaped foam interior simplifies (un)packing

The DCN-WFCD10 Flight Case accommodates up to 10 wireless discussion units complete with battery packs and microphones (long or short stems).

The case also holds 2 DCN-WCH05 charging units.

Technical Specifications

Mechanical

Dimensions (H x W x D)	500 x 770 x 300 mm (19.7 x 30.3 x 12 in)
Weight	9 kg (19.8 lb)
Color	Light grey

Ordering Information

DCN-WFCD10 Flight Case for 10 Wireless Discussion light grey, holds 10 wireless discussion units and 2 charging units	DCN-WFCD10

DCN-WFCCCU Flight Case for CCU and WAP

Features

- Robust construction with reinforced corners
- Easy to carry and store
- Shaped interior
- Holds WCCU, WAP and network cabling

The DCN-WFCCU Flight Case provides a secure transportation and storage solution for:

- a Wireless Central Control Unit, Wireless Access Point and optical network cable
- 2 x Wireless Central Control Units (if dividing foam partition is removed from case)

Technical Specifications

Mechanical

Dimensions (H x W x D)	480 x 510 x 295 mm (18.9 x 20.1 x 11.46 in)
Weight	6 kg (13.2 lb)
Color	Light grey

Ordering Information

DCN-WFCCCU Flight Case for CCU and WAP light grey, holds wireless central control unit(s), access point & cable	DCN-WFCCCU

LBC 1259/00 Universal Floorstand

Features

- Multi-purpose, lightweight aluminum stand
- For mounting a loudspeaker, wireless access point or Integrus radiator
- Double-braced folding base
- Reducer flange for different mountings
- Hand-adjustable
- Carrier bag for two pieces as optional accessory

This universal floorstand provides effective mounting solutions for loudspeaker installations, a Wireless Access Point of the DCN-Wireless system, or a radiator of the Integrus digital language distribution system. They are manufactured and finished to the same high standards as all Bosch products, assuring excellent quality and guaranteed compatibility throughout the range. The LBC 1259/00 is suited to a wide range of applications where a secure yet transportable mounting solution is required.

Functions

Adjustable and safe

The LBC 1259/00 floorstand is hand-adjustable using a spring-loaded locking screw for heights between 1.4 and 2.2 m (4.6 and 7.2 ft). An extra safety bolt on the support can be tightened to ensure the stand remains extended.

This lightweight stand has a double-braced folding base for extra strength, and a wide leg span to ensure stability.

Adaptable

The floorstand is standard supplied with a 36 mm (1.42 in) reducer flange with an M10 x 12 threaded pin to mount different sized equipment, and with an M10 knob to fix the Wireless Access Point mounting bracket.

Accessories

For storage and ease of transport, a carrier bag is available with two inside compartments with separate zippers for holding two universal floorstands (LBC 1259/00). The bag, with Bosch logo, is made from sturdy black weather-proof nylon. Two handles are fitted for carrying the bag by hand or over the shoulder.

LM1-CB Carrier Bag (optional)

Installation/Configuration Notes

LBC 1259/00 with DCN Wireless Access Point, LBB 451x/00 Infra-red Radiator and XLA 3200 Line Array Loudspeaker

Parts Included

Quantity	Component
1	LBC 1259/00 Universal Floorstand
1	36 mm (1.42 in) reducer flange with (M10 x 12) threaded pin
1	M10 securing knob for WAP mounting bracket

Technical Specifications

Mechanical

Length	
standing	1.375 to 2.185 m (54 to 86 in)
folded	1.20 m (47 in)
Width	
legs extended	980 mm (38.6 in)
legs folded	130 mm (5.1 in)
Weight	3.5 kg (7.7 lb)
Max. load	50 kg (110.2 lb)
Material	Aluminum
Tube diameter	36 mm (1.42 in)
Thread	1/2" Whitworth

Mechanical

Carrier bag accessory

Dimensions (L x D)	1.25 m x 27 mm (49 x 1.06 in)
Weight	750 g (1.65 lb)
Color	Black with light grey handles
Material	Nylon

Ordering Information

LBC 1259/00 Universal Floorstand lightweight aluminum construction, foldable, M10 x 12 reducer flange	LBC1259/00
LM1-CB Carrier Bag for two floorstands LBC 1259/00	LM1-CB

DCN-SWSMV Synoptic Microphone and Voting Software

Features

- Synoptic room overview for monitoring and controlling the microphones
- Voting control with individual results
- Real-time voting results displayed in Microsoft PowerPoint®
- On-screen help in many languages

The DCN-SWSMV Synoptic Microphone and Voting Software provides a range of conference facilities when used in combination with a DCN Wireless or DCN Next Generation system. The available functions include automatic seat assignment, synoptic microphone monitoring and control, and voting management.

Although it offers many powerful features, the software is extremely easy to use thanks to its innovative design. The application moves away from traditional control panels and buttons and replaces them with a highly intuitive graphic user interface. All functions are controlled from a single window making the software suitable for touch screen operation. The software features on-screen help in most major languages.

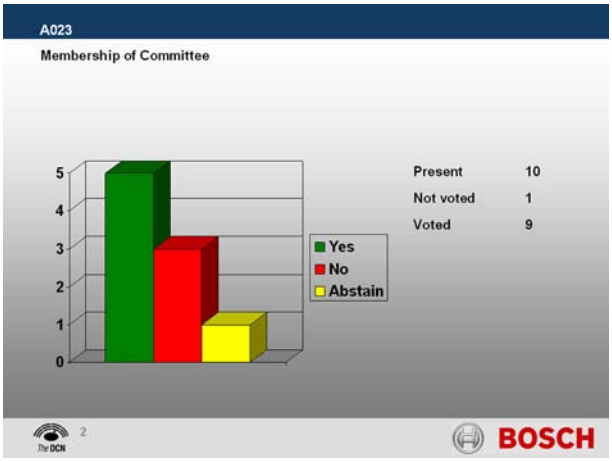
The user interface is based on a graphical representation of the conference venue. When a device is connected to the system it is automatically recognized and an icon is created for it on the on-screen room layout. The icons display information about device status and can be used by the operator to select individual devices for remote control functions. If a device becomes disconnected from the system, a red cross is displayed on top of its icon to alert the operator.

The Synoptic Microphone and Voting Software can operate in the following modes, depending on the required task:

- Assignment mode allows you to assign names to microphone icons. The positions of the icons on the room layout can also be changed using the standard windows ‘drag & drop’.
- Microphone control mode allows you to observe and control the state of each individual microphone. Microphones can be switched on and off, or placed in the ‘request to speak’ queue.
- Battery and signal view mode shows the remaining battery charge time and the signal strength for each wireless discussion unit
- Voting result mode shows individual results in different colors according to votes cast

Note: The different symbols in the various modes are specially designed so that they are also easily identified by persons with the visual disability of color blindness.

The application provides parliamentary voting functionality. The system operator can summon delegates to vote, as well as starting and stopping voting sessions. Final vote results can be automatically printed or exported to a file; the software can also be configured to send real-time voting information to Microsoft PowerPoint® for display.



Real-time voting results in Microsoft PowerPoint®

Ordering Information

DCN-SWSMV Synoptic Microphone and Voting Software	DCN-SWSMV

LBB 3441/10 Under the Chin Headphones

Features

- Lightweight stereo headphones
- Ergonomic design for use under the chin
- Replaceable ear tips
- Right-angled, gold-plated jack plug

Functions

Interconnections

- 1.2 m (4 ft) cable terminated with 3.5 mm (0.14 in) right-angled stereo jack plug

Technical Specifications

Electrical

Impedance	150 ohm per earpiece
Audio frequency response	50 Hz – 5 kHz (-10 dB)
Power handling capacity	60 mW
Sensitivity (1 kHz)	107 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	33 g (0.07 lb)
Color	Black

Ordering Information

LBB 3441/10 Under the Chin Headphones	LBB3441/10
LBB 3441/50 Ear Tips for LBB 3441 (500 pairs)	LBB3441/50

LBB 3442/00 Single Earphone

Features

- Lightweight single earphone
- Left or right ear use

Functions

Interconnections

- 1.2 m (4 ft) cable terminated with 3.5 mm (0.14 in) jack plug

Technical Specifications

Electrical

Impedance	32 ohm
Audio frequency response	100 Hz - 5 kHz (-10 dB)
Power handling capacity	5 mW
Sensitivity (1 kHz)	114 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	25 g (0.06 lb)
Color	Dark grey

Ordering Information

LBB 3442/00 Single Earphone	LBB3442/00

LBB 3443 Lightweight Headphones

Ordering Information

LBB 3443/00 Lightweight Headphones	LBB3443/00
LBB 3443/10 Lightweight Headphones Durable Cable	LBB3443/10
Accessories	
LBB 3443/50 Foam Ear Pads for LBB 3443 (50 pairs) replacement foam ear pads	LBB3443/50
HDP-LWSP Solid Ear Pads for LBB 3443 (50 pairs) washable replacement ear pads	HDP-LWSP

Features

- Lightweight with high quality sound reproduction
- Replaceable ear pads
- Available with normal or durable cable
- Separate available solid washable ear pads

Functions

These headphones can be fitted with an optional set of washable ear pads.

Washable ear pads

Interconnections

- 1.3 m (4.25 ft) cable terminated with gold-plated 3.5 mm (0.14 in) angled stereo jack plug

Technical Specifications

Electrical

Impedance	32 ohm per earpiece
Audio frequency response	50 Hz - 20 kHz (-10 dB)
Power handling capacity	50 mW
Sensitivity (1 kHz)	98 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	70 g (0.16 lb)
Finish	Charcoal (PH 10736) with silver

HDP-ILN Induction Loop Neckband

Features

- Lightweight
- Used with ‘T-coil’ hearing aids

Functions

This induction loop neckband can be used with:

- Integrus receivers
- CCS800 unit
- DCN unit

The neckband magnetically couples the sound signal from the headphone output to a ‘T-coil’ hearing aid.

Interconnections

- 0.9 m (3ft) cable terminated with a 3.5 mm (0.14 in) gold-plated plug

Technical Specifications

Mechanical

Weight	45 g (0.10 lb)
Color	Charcoal with silver

Ordering Information

HDP-ILN Induction Loop Neckband	HDP-ILN

LBB 3015/04 High Quality Dynamic Headphones

Features

- Durable dynamic headphones
- Replaceable ear pads
- High-quality sound reproduction
- Gold-plated stereo jack plug

Functions

Interconnections

- 1.5 m (5 ft) cable terminated with a 3.5 mm (0.14 in) stereo jack plug

Technical Specifications

Electrical

Impedance	720 ohm per earpiece
Audio frequency response	250 Hz - 13 kHz (-10 dB)
Power handling capacity	200 mW
Sensitivity (1 kHz)	97 dB SPL/earpiece at 0 dBV/system 96 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	110 g (0.24 lb)
Color	Dark grey

Ordering Information

LBB 3015/04 High Quality Dynamic Headphones	LBB3015/04
LBB 9095/50 Ear pads for LBB 3015 LBB 9095 (25 pairs)	LBB9095/50

LBB 9095/30 Interpreter Headphones

Features

- Durable and dynamic
- Replaceable ear pads
- High-quality sound reproduction

Lightweight, dynamic headphones for direct connection to DCN-IDESK Interpreters Desk.

Functions

Interconnections

- 2.2 m (7 ft) cable terminated with a 6.3 mm (0.25 in) stereo jack plug

Technical Specifications

Electrical

Impedance	720 ohm per earpiece
Audio frequency response	250 Hz - 13 kHz (-10 dB)
Power handling capacity	200 mW
Sensitivity (1 kHz)	97 dB SPL/earpiece at 0 dBV/system 96 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	125 g (0.28 lb)
Color	Black/grey

Ordering Information

LBB 9095/30 Interpreter Headphones	LBB9095/30
LBB 9095/50 Ear pads for LBB 3015 LBB 9095 (25 pairs)	LBB9095/50

DCN-IDESK Interpreter Desk

Features

- Low susceptibility to mobile phone interference
- Ergonomic design with features for visually impaired
- Up to 31 interpretation channels and the original floor language with an audio bandwidth of 20 kHz
- A graphic LCD with backlighting for bright information display in dark conditions
- 5 pre-select keys for relay languages with activation indication at the display
- Compliant to ISO 2603

The DCN-IDESK is a single-user interpreter desk with a stylish and modern design. It fully conforms to internationally agreed standards. Clear positioning per functional area of the desk controls allows intuitive operation without mistakes.

A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately).

Functions

- A maximum of six desks can be installed per booth
- Tabletop and flush mountable
- Pluggable microphone (DCN-MICS)
- Ergonomic design

Controls and Indicators

- A and B output channel with status and selection indication at the display
- All channels have channel number, language names and quality level indicated at the display
- Features for visually impaired such as a small bump on the middle button, and beeps to indicate microphone on/off and double relay selected
- Built-in loudspeaker with language channel selector
- Speech timer to indicate elapsed time of interpretation
- Speak slowly facility to alert the current speaker to slow down
- Help request to an operator or usher
- Booth telephone and intercom indicator
- Automatic headset selection when headset connected
- Easy programming via menus on the display after entering the programming mode
- Microphone key with surrounding red “on-air” indicator and green for “booth not in use”
- Mute key
- Help key
- Slow (speak slowly) key
- Operator and chairman intercom call keys
- Message key with yellow LED indicator
- Telephone and Intercom call yellow LED indicators
- A and B channel engaged yellow LED indicators
- Rotary step control for channel settings (and other functions).
  Pressing this button sets the selection to the first available channel
- LCD with backlighting showing selected and activated output channel with channel numbers and abbreviated language names
- Loudspeaker rotary volume control
- Headphone rotary volume control
- Headphone rotary bass and treble tone controls
- Beep on/off key
- Five Relay language pre-select keys
- Floor/auto-relay key with green LED indicators
- Rotary step control (same as for speaking section) to select the relay languages for the relay pre-select keys and the loudspeaker channel. Pressing this button sets the selection to the first available channel
- LCD with backlighting, showing selected relay language with channel numbers, abbreviated names and quality indicators. Also the selected loudspeaker channel with abbreviated name is shown

Interconnections

- Socket for pluggable microphone
- Headphone or headset connector (five-pole 180° Din type socket wired according to IEC 574-3)
- 6.3 mm (0.25 in) and 3.5 mm (0.14 in) stereo jack headphone connectors
- 2 m (78.7 in) DCN cable with molded six-pole circular connector
- Six-pole circular socket for loop-through connection to the DCN network
- Eight-pole modular jack connector for connection to booth telephone, intercom and booth on-air sign

Technical Specifications

Electrical

Headphone connection	
Frequency response	30 Hz - 20 kHz
Load impedance	> 32 ohm
Output power	2 x 30 mW/32 ohm

Headset connection	
Frequency response	30 Hz - 20 kHz
Load impedance	> 32 ohm

Electrical

Output power	60 mW/32 ohm
Nominal microphone input level	7 mVrms
Overload microphone input level	> 124 mVrms

Mechanical

Mounting	Free-standing or mounted on a table
Dimensions (H x W x D) (with microphone)	82 x 330 x 170 mm (3.2 x 13 x 6.7 in)
Slope	25 degrees
Weight	1.3 kg (2.87 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-IDESK-L	Light grey (RAL 000 7500)
DCN-IDESK-D	Charcoal (PH 10736)

Ordering Information

DCN-IDESK-L Interpreter Desk Light with light base	DCN-IDESK-L
DCN-IDESK-D Interpreter Desk Dark with dark base	DCN-IDESK-D

DCN-MICS/L Pluggable Microphone Short/Long Stem

Features

- Uni-directional microphone on adjustable stem
- Built-in plop and windshield

The innovative, stylish and ergonomically designed microphone with an adjustable stem simply plugs directly into a Discussion unit, Concentus, flush-mounted Microphone Connection panes or Interpreter desk. It has a uni-directional response for optimum performance even in noisy conditions, and has low susceptibility to interference from mobile phones.

Functions

Controls and Indicators

- Red or green illuminator. Red indicates microphone is active, green indicates request-to-speak accepted

Interconnections

- Connector to plug and fasten the microphone

Technical Specifications

Mechanical

Mounting	Plug and fasten into Discussion units, Concentus, flush mounted Microphone connection panels and Interpreter desks
Length	
DCN-MICS	310 mm (12.2 in)
DCN-MICL	480 mm (18.9 in)
Weight	
DCN-MICS	100 g (0.22 lb)
DCN-MICL	115 g (0.25 lb)
Color top	Silver (RAL 9022)

Ordering Information

DCN-MICS Pluggable Short Microphone length 310 mm (12.2 inch)	DCN-MICS

Ordering Information

DCN-MICL Pluggable Long Microphone length 480 mm (18.9 inch)	DCN-MICL

PRS-4DEX4 Audio Expander Digital

Features

- Stylish and modern design (IF award)
- Room coupling facility
- Versatile audio distribution facility
- AES/EBU or SPDIF
- Sample-rate converters (8 – 96 kHz)
- Optical network coupling
- Redundant network capability

The digital audio expander can contribute audio to and distribute audio from the system. Typical applications are room coupling and audio distribution.

Functions

- Automatic Gain Control
- Audio input channels for floor and interpretation channels
- Audio output channels for floor and interpretation channels (16-bit 44.1 kHz)
- Flexible routing of floor and interpretation channels
- Configuration of the Digital Audio Expander via a display and a single rotary push button
- Each Digital Audio Expander can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using headphones
- 19” (2U) housing for tabletop or rack mounting
- Handgrips for easy transportation
- Unit is powered from the network

Controls and Indicators

- 2 x 16 Character LCD display for status display and configuration of the Audio Expander
- Rotary control to navigate through the LCD menus

Interconnections

Front

- One stereo headphone output 3.5 mm (0.14 in)

Back

- Two optical network connections for connecting to CCU
- Two 3-pole XLR AES/EBU stereo inputs for 2 audio channels per input
- Two Cinch SPDIF stereo inputs for 2 audio channels per input
- Two 3-pole XLR AES/EBU stereo outputs for 2 audio channels per output
- Two Cinch SPDIF stereo outputs for 2 audio channels per output
- Eight control inputs to enable audio inputs and audio outputs
- Five control outputs to indicate channel engaged state

Parts Included

Quant.	Component
1	PRS-4DEX4 Digital Audio Expander
1	Set of mounting brackets for 19” rack
1	Set of feet
1	Set of connectors

Technical Specifications

Electrical

Supply voltage	24 to 48 VDC
Power consumption	6 W
Frequency response	30 Hz - 20 kHz
THD at nominal level	< 0.5 %

Mechanical

Mounting	Tabletop or mounted in a 19” rack
Dimensions (H x W x D)	
for tabletop use, with feet	92 x 440 x 400 mm (3.6 x 17.3 x 15.7 in)
for 19” rack use, with brackets	88 x 483 x 400 mm (3.5 x 19 x 15.7 in)
in front of brackets	40 mm (1.6 in)
behind brackets	360 mm (14.2 in)
Weight	6 kg (13.2 lbs)
Color	Charcoal (PH 10736) with silver

Ordering Information

PRS-4DEX4 Audio Expander Digital	PRS-4DEX4

LBB 4402/00 Audio Expander

Features

- Stylish and modern design (IF award)
- Room coupling facility
- Versatile audio distribution facility
- Optical network for coupling to the CCU
- Redundant network capability

The audio expander can contribute audio to and distribute audio from the system. Typical applications are room coupling and audio distribution.

Functions

- Redundant network cabling can be either single branch or redundant loop
- Audio line inputs (of which 2 can be configured as microphone input) for floor and interpretation channels
- Audio line outputs for floor and interpretation channels
- Flexible routing of floor and interpretation channels
- Adjustable sensitivity for the audio inputs
- Adjustable level for the audio outputs
- Configuration of the Audio Expander via a display and a single rotary/push button
- Each Audio Expander can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using a headphone
- 19” (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- The unit is powered from the network

Controls and Indicators

- 2 x 16 Character LCD display for status display and configuration of the Audio Expander
- Rotary/push control to navigate through the LCD menus

Interconnections

Front

- One stereo headphone output 3.5 mm (0.14 in)

Back

- Two optical network connections for connecting to the CCU
- Four three-pole XLR balanced audio line inputs with galvanic separation
- Four stereo Cinch unbalanced audio line inputs
- Four three-pole XLR balanced audio line outputs with galvanic separation
- Four stereo Cinch unbalanced audio line outputs
- Eight control inputs to enable audio inputs and audio outputs
- Five control outputs to indicate channel engaged state

Parts Included

Quantity	Component
1	LBB 4402/00 Audio Expander
1	Set of mounting brackets for 19” rack
1	Set of feet
1	Set of connectors

Technical Specifications

Electrical

Supply voltage	24 to 48 VDC
Power consumption	7.6 W (DC)
Frequency response	30 Hz to 20 kHz (-3 dB at nominal level)
THD at nominal level	<0.5%
Crosstalk attenuation	>85 dB at 1 kHz
Dynamic range	>90 dB
Signal-to-noise ratioo	>87 dBA
Audio line inputs	
XLR nominal input	0 dBV (±6 dB)
XLR maximum input	+12 dBV
Cinch nominal input	+12 dBV (±6 dB)
Cinch maximum input	0 dBV
Audio mic inputs	
Nominal input	57 dBV (±6 dB)
Maximum input	26 dBV
Phantom supply	12 V ±1 V at 15 mA
Audio line outputs	
XLR nominal output	12 dBV (+6 / -24 dB)
XLR maximum output	+12 dBV
Cinch nominal output	24 dBV (+6 / -24 dB)
Cinch maximum output	0 dBV

Mechanical

Dimensions (H x W x D)	
for tabletop use, with feet	92 x 440 x 400 mm (3.6 x 17.3 x 15.7 in)
for 19” rack use, with brackets	88 x 483 x 400 mm
in front of brackets	(3.5 x 19 x 15.7 in)
behind brackets	40 mm (1.6 in) 360 mm (14.2 in)
Weight	7 kg (15.4 lbs)
Mounting	Tabletop, 19”-rack
Color	Charcoal (PH 10736) with silver

Ordering Information

LBB 4402/00 Audio Expander	LBB4402/00

LBB 4404/00 CobraNet Interface

Features

- Stylish and modern design (IF award)
- Room coupling facility
- Versatile audio distribution facility
- CobraNet™ compatible using Ethernet
- Optical network for coupling to the CCU
- Redundant network cabling

The CobraNet™ Interface can interface audio from the DCN system to a CobraNet™ network using standard Ethernet networks. Typical applications are room coupling and audio distribution over long distances.

CobraNet™ is a registered trademark of Peak Audio, a Division of Cirrus Logic, Inc.

Functions

- Redundant network cabling can be either single branch or redundant loop
- Flexible routing of floor and interpretation channels
- Configuration of the CobraNet™ Interface audio channel routing via a display and a single rotary push button
- Automatic Gain Control
- Configuration of the CobraNet™ Interface with software tools included
- Each CobraNet™ Interface can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using a headphone
- 19" (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- The unit is powered from the network

Controls and indicators

- 2 x 16-character LCD display for status display and audio channel routing of the CobraNet™ Interface
- Rotary control to navigate through the LCD menus

Interconnections

Front

- One stereo headphone output 3.5 mm (0.14 in)

Back

- Two optical network connections
- Two RJ45 Ethernet connectors for the CobraNet™
- Eight control inputs to enable audio inputs and audio outputs for floor and interpretation channels
- Five control outputs to indicate channel engaged state

Parts Included

Quantity	Component
1	LBB 4404/00 CobraNet Interface
1	Set of mounting brackets for 19" rack
1	Set of feet
1	Set of connectors

Technical Specifications

Electrical

Supply voltage	24 to 48 VDC
Power consumption	10.5 W (DC)
Frequency response	30 Hz to 20 kHz
THD at nominal level	<0.5%

CobraNet™

Physical layer	Ethernet
Channels	4 in / 4 out per interface Max 64 on CobraNet™
Compliance	IEEE 802.3
Audio Transport	16 / 20 / 24-bit
Sample Rate	48 kHz
Latency	5.33 ms

Mechanical

Dimensions (H x W x D)	
for tabletop use, with feet	92 x 440 x 400 mm (3.6 x 17.3 x 15.7 in)
for 19" rack use, with brackets	88 x 483 x 400 mm (3.5 x 19 x 15.7 in)
in front of brackets	40 mm (1.6 in)
behind brackets	360 mm (14.2 in)
Weight	7 kg (15.4 lbs)
Mounting	Tabletop, 19"-rack
Color	Charcoal (PH 10736) with silver

Ordering Information

LBB 4404/00 CobraNet Interface	LBB4404/00

DCN-DDI Dual Delegate Interface

Features

- Dual Delegate mode for two microphones and two voting and card panels
- Two microphone/line inputs
- Outputs to headphones or loudspeakers
- Range of mounting options
- Use for entrance/exit registration
- Shared microphone with dual microphone control

The Dual Delegate Interface is intended for use in flush mounted custom solutions. It enables a number of functions to be added, making it suitable for chairmen and delegates. Such functions include facilities for connecting a Voting Panel, with or without a Card reader (DCN-FVCRD or DCN-FV). In addition, two separate audio inputs are provided that can also be used as line inputs. Each input can be assigned its own seat number, allowing the DCN-DDI to serve two delegate positions.

Settings are available to assign the Dual Delegate Interface for use as a delegate unit, a dual delegate, chairman unit, entrance/exit unit or ambient microphone. The ambient microphone is located in the conference venue, and automatically switched on when no other delegate unit or chairman unit microphones are active. In this way, interpreters always have audio contact with conference venue.

Functions

- The loudspeaker output is switched off when the corresponding input is switched on
- The unit can be mounted free-standing on a tabletop, mounted on a wall, or discreetly mounted into tabletops or into the arm rests of chairs, etc.
- The unit is suitable for Hand-Held Microphones (DCN-FHH) or Pluggable Microphones (DCN-MIC) with Microphone Connection Panel (DCN-FMIC) and Microphone Control Panel (DCN-FMICB)
- The unit provides a single connection for an Intercom Handset (LBB 3555/00).

Controls and Indicators

- Three Switches per input with the following possibilities:
  - Microphone or line selection
  - Asymmetrical microphone input, symmetrical microphone/ line input, or symmetrical microphone input with phantom power selection
  - Input attenuation selection of 0, 6, 12 or 18 dB +/- 3 dB input level fine adjustment potentiometer per input Interconnection
- Remote control inputs (switches) and outputs (LEDs) matching the DCN microphones and control panels
- Switch to select the different modes of the DCN-DDI:
  - Dual delegate
  - Chairman
  - Dual delegate, one microphone
  - Dual delegate, muted loudspeakers
  - Single delegate
  - Entrance/Exit
  - Ambient microphone

Note: To use the entrance/exit mode, PC control software is also required.

Interconnections

- Two RJ11 connectors for Microphone Control Panel DCN-FMIC, Priority Panel DCN-FPRIOB, Voting Panel DCN-FV and Voting and Card Panel DCN-FVCRD
- RJ11 connector for Intercom Handset LBB 3555/00
- Two balanced audio inputs for line (0 dB), or microphone (-60 dB) sources, with or without a phantom power supply (2 x eight-pole 262° DIN-type socket)
- Six-pole circular connector for loop-through system cabling
- 2 m (78.7 in) cable terminated with a molded six-pole circular connector
- Two 3.5 mm (0.14 in) stereo jack sockets for connection to headphones or to loudspeaker panel (DCN-FLSP).

Technical Specifications

Mechanical

Mounting	On wall, under tabletop or seat, in arm rest or in cable duct
Dimensions (H x W x D) (excl. cables)	35 x 100 x 170 mm (1.4 x 3.9 x 6.7 in)
Weight	500 g (1.10 lb)
Color	Charcoal (PH 10736)

Ordering Information

DCN-DDI Dual Delegate Interface for flush mounted custom solutions	DCN-DDI

LBB 3555/00 DCN Intercom Handset

Features

- Ideal for intercom applications
- For use with all Concentus and Dual Delegate Interface
- Can be permanently mounted to wall, chair or tabletop

Lightweight and compact, this robust and attractively styled handset and cradle enables private 2-way conversation between conference participants. The handset is hard-wired to the cradle by a coiled cable, 0.5 m (19.6 in) long when coiled, and 2 m (78.7 in) uncoiled. The cable is terminated with a six-pole RJ45 connector for connection to Concentus and Dual Delegate Interface. When used in permanent installations, the unit is easily mounted to a tabletop or wall using the two screws.

Functions

Interconnections

- Six-pole RJ45 socket

Technical Specifications

Mechanical

Mounting	Tabletop or wall-mounted using the 2 screw holes on the cradle
Dimensions (H x W)	53 x 210 mm (2.08 x 8.26 in)
Weight	250 g (0.55 lb)
Color	Charcoal (PH 10736)

Ordering Information

LBB 3555/00 DCN Intercom Handset with coiled handset cable with 2 m reach, six-pole RJ45 connector	LBB3555/00

DCN-FHH Hand Held Microphone

Ordering Information

DCN-FHH Hand Held Microphone cable length 5 m (16.4 ft)	DCN-FHH
DCN-FHHC Hand Held Microphone with coiled cable, length un-coiled 1.4 m (4.6 ft)	DCN-FHHC

Features

- Light, portable microphone
- Built-in plop and windshield
- On/off switch and LED status indicators

The DCN-FHH is a uni-directional, condenser microphone with built-in plop and windshield. It comfortably fits into one hand and is ideal for applications where the speaker is on the move. Two of these microphones can be connected to the Dual Delegate Interface DCN-DDI.

Functions

Controls and Indicators

- Condenser microphone with built-in plop and windshield
- Microphone on/off or request-to-speak button
- 'Microphone on' indicator (red LED)
- 'Request-to-speak' confirmation indicator (green LED)

Technical Specifications

Mechanical

Mounting	Using clamp LBC 1215/01 the microphone may be mounted on a stand, wall or on a chair
Dimensions (H x W)	215 x 30 mm (8.5 x 1.2 in)
Cable length DCN-FHH DCN-FHH-C	 5 m (16.4 ft) Coiled 0.4 m (1.3 ft), un-coiled 1.4 m (4.6 ft)
Weight	350 g (0.77 lb)
Color	Charcoal (PH 10736)

LBB 9600/20 Condenser Handheld Microphone

Features

- Condenser transducer
- Unidirectional
- High speech intelligibility
- Low sensitivity to case noise and vibrations
- Phantom powered
- Rugged construction
- Modern non-reflecting matt black finish

This condenser microphone is based on an electric transducer element in a sturdy housing with shielding against wind and wind bursts (pops). It is intended for public address and sound reinforcement applications, such as in churches, theaters, and congress centers.

Functions

The handheld LBB 9600/20 is an excellent microphone with almost frequency independent, unidirectional directivity. Its low equivalent input noise level and insensitivity to stray electrostatic and electromagnetic fields keep the audio signal free from spurious noise.

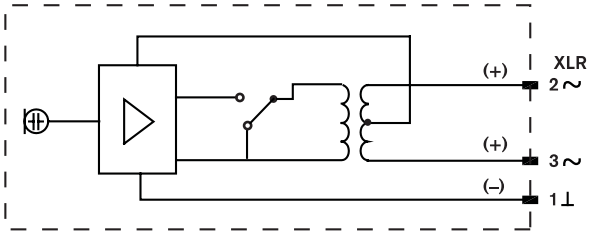
The microphone has an on/off slide-switch and a 3-pin, lockable XLR plug. It uses a phantom power supply, which is available on all microphone inputs on Bosch public address amplifiers.

It comes with a push-on clip with a Whitworth-threaded screw fitting, and a multi-thread adaptor (3/8", ½", and 5/8") for mounting. The supplied 7 m (23 ft) connection cable has 3-pin, lockable male and female XLR connectors.

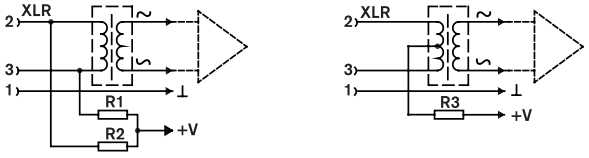
Accessories

A number of accessories, such as extension cables, table stands and floor stands are also available. See the separate microphone accessories data sheet.

Installation/Configuration Notes



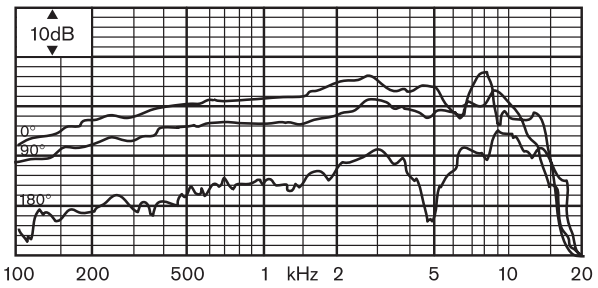
Circuit diagram



+V	R1=R2(±0.4%)
12V±1V	680 ohm±10%
24V±4V	1200 ohm±10%
48V±4V	6800 ohm±10%

+V	R3(±10%)
12V±1V	330 ohm
24V±4V	3300 ohm

Circuit diagram



Frequency response

Technical Specifications

Electrical*

Phantom power supply	
Voltage range	11 V to 52 V (acc. to DIN 45596 and IEC 268-15A)
Current consumption	<1.5 mA
Performance	
Polar pattern	Unidirectional
Frequency range	100 Hz to 16 kHz
Sensitivity	2 mV/Pa +/--3 dB (-54 dB rel. to 1 V/Pa)
Rated output impedance	200 ohm
Equivalent input noise level	26 dB (A)

** Technical performance data acc. to IEC 60268-4*

Mechanical

Dimensions (D x L)	54 x 170 mm (2.13 x 6.69 in)
Weight	245 g (8.64 oz)
Color	Black
Switch	On/off slide

Mechanical

Cable type	
Cable length	7 m (23 ft)
Connector	3-pin XLR (male)

Environmental

Operating temperature	-20 °C to +55 °C (-4 °F to +131 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Ordering Information

LBB 9600/20 Condenser Handheld Microphone 7 m (23 ft) cable, 3-pin lockable male and female XLR connectors	LBB9600/20
LBC 1102/02 Cable Transformer for galvanic separation	LBC1102/02
LBC 1221/01 Floor Stand three folding legs, adjustable length with twist clamp	LBC1221/01
LBC 1226/01 Adjustable Boom maximum reach of 670 mm (2.12 ft); length 840 mm (2.76 ft)	LBC1226/01
LBC 1227/01 Table Stand with 3/8" Whitworth stud; 130 mm (5.12 in) diameter	LBC1227/01

LBC 1215/01 Microphone Clamp

Features

- Quick-release universal microphone clamp
- Spring-loaded microphone holder
- Friction angular adjustment
- Screws onto a 3/8", 1/2" or 5/8" Whitworth thread
- Holds microphone stem with 19 to 32 mm diameter

The 1215/01 Microphone Clamp is available for all Bosch hand-held microphones.

Technical Specifications

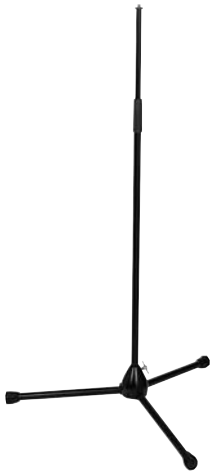
Mechanical

Weight	60 g (0.13 lb)
Color	Matt black

Ordering Information

LBC 1215/01 Microphone Clamp spring-loaded microphone holder, friction angular adjustment	LBC1215/01

LBC 1221/01 Floor Stand



Features

- Adjustable from 850 to 1600 mm (2.79 to 5.25 ft) with twist clamp
- Three folding legs (360 mm; 1.18 ft) for stability
- Column terminates in male 3/8" Whitworth thread

Technical Specifications

Mechanical

Dimensions (folded)	850 x 110 mm (33.46 x 5.25 in)
Weight	2.4 kg (6.43 lb)
Color	matt black

Ordering Information

LBC 1221/01 Floor Stand three folding legs, adjustable length with twist clamp	LBC1221/01
LBC 1226/01 Adjustable Boom maximum reach of 670 mm (2.12 ft); length 840 mm (2.76 ft)	LBC1226/01

LBC 1226/01 Adjustable Boom

Features

- Adjustable in reach and angle (quick-release screw clamp)
- Maximum reach of 670 mm (2.12 ft)
- Fits onto 3/8" Whitworth thread

Technical Specifications

Mechanical

Length	840 mm (2.76 ft)
Weight	700 g (1.88 lb)
Color	matt black

Ordering Information

LBC 1226/01 Adjustable Boom maximum reach of 670 mm (2.12 ft); length 840 mm (2.76 ft)	LBC1226/01
LBC 1221/01 Floor Stand three folding legs, adjustable length with twist clamp	LBC1221/01

DCN-FCS Flush Channel Selector

Features

- Stylish and modern design (IF award)
- Automatically adapts to available channels
- Built-in “Silent” function
- No audio output until the headphone is connected
- Flush mountable in tabletops, on top or at the front, or in arm rests of seats

The DCN-FCS is a compact and stylish single-user audio channel selector for listening by headphone. It provides a choice of up to 32 high-quality audio channels used for distribution of interpretation and floor channels.

Functions

- Built-in “Silent” function; no audio output until one of the keys has been pressed to eliminate audible noise from the headphones when not in use
- Upon insertion of a headphone the default “floor” channel (channel 0) is selected with a comfortable headphone volume and the dimmed backlighting is activated

Controls and Indicators

- Two push-buttons (up/down) for channel selection
- Two push-buttons (up/down) for headphone volume control
- Backlit 2-digit LCD for channel number indication Interconnection

Interconnections

- 3.5 mm (0.14 in) stereo jack headphone connector
- Connector for external headphone
- 2 m (78.7 in) cable with a molded six-pole circular connector
- Six-pole circular connector for loop-through interconnection

Technical Specifications

Electrical

Frequency response	30 Hz - 20 kHz
Headphone Load impedance	> 32 ohm < 1 k ohm
Output power	2 x 15 mW/32 ohm

Mechanical

Mounting	Flush mounted
Dimensions (H x W x D)	40 x 100 x 100 mm (1.6 x 3.9 x 3.9 in)
Weight	0.3 kg (0.66 lb)
Color	Silver (RAL 9022)

Ordering Information

DCN-FCS Flush Channel Selector flush mounted, silver	DCN-FCS

DCN-FEC Flush End Cap (50 pcs)

Features

- Stylish and modern design (IF award)

Matching end caps give a finishing touch to the flush mounted devices. Two end caps are needed per flush mount position.

Technical Specifications

Mechanical

Mounting	Click-to-fit in DCN-FCOUP couplings
Dimensions (H x W)	40 x 20 mm (1.57 x 0.79 in)
Weight	2 g (0.004 lb)
Color	Silver (RAL 9022)

Ordering Information

DCN-FEC Flush End Cap (50 pcs) flush mounted, silver, set of 50	DCN-FEC

LBB 4116 Series DCN Extension Cables

Cable terminated at both ends with a molded six-pole circular connector (male and female). The extension to the type number gives the length of the cable.

Technical Specifications

Mechanical

Dimensions (dia.)	6 mm (0.24 in)
Material	PVC
Color	Grey

Ordering Information

LBB 4116/00 DCN Installation Cable 100m 100 m (328 feet), without connectors	LBB4116/00
LBB 4116/02 DCN Extension Cable 2m 2 m (6.6 feet), terminated with connectors	LBB4116/02
LBB 4116/05 DCN Extension Cable 5m 5 m (16.0 feet), terminated with connectors	LBB4116/05
LBB 4116/10 DCN Extension Cable 10m 10 m (33.0 feet), terminated with connectors	LBB4116/10
LBB 4116/15 DCN Extension Cable 15m 15 m (49.2 feet), terminated with connectors	LBB4116/15
LBB 4116/20 DCN Extension Cable 20m 20 m (66.0 feet), terminated with connectors	LBB4116/20
LBB 4116/25 DCN Extension Cable 25m 25 m (82.0 feet), terminated with connectors	LBB4116/25

LBB 4117/00 DCN Cable Locking Clamp (25 pcs)

Matching clamps for male/female cable connectors such as those on the DCN Extension Cable (LBB 4416). One clamp per male/ female connector required.

Ordering Information

LBB 4117/00 DCN Cable Locking Clamp (25 pcs) LBB4117/00
set of 25

LBB 4118/00 DCN Termination Plug

The termination plug is specially designed for use with opened-ended DCN cabling.

Ordering Information

LBB 4118/00 DCN Termination Plug LBB4118/00

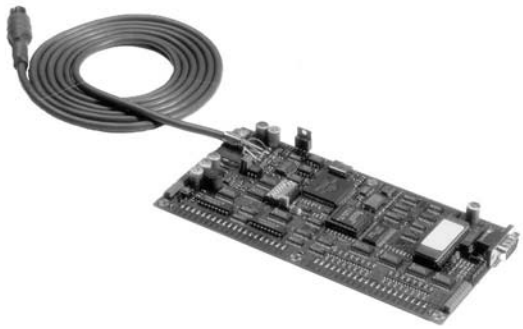
LBB 4119/00 DCN Connectors (25 pairs)

The set DCN Connectors contains 25 female and 25 male connectors that can be used with the 100 m (328 ft) DCN Installation Cable LBB 4116/00.

Ordering Information

LBB 4119/00 DCN Connectors (25 pairs)	LBB4119/00

DCN-DDB Data Distribution Board



Technical Specifications

Electrical

External supply	7.5 – 35 VDC.

Mechanical

Dimensions (H x W)	100 x 200 mm (3.93 x 7.87 in)

Ordering Information

DCN-DDB Data Distribution Board	DCN-DDB

Features

- Drives hall displays
- Allows transparent data transport for remote control of external equipment
- Speak slowly and help indicator control

The DCN-DDB is a printed circuit board that is used with digital equipment such as hall displays, recorder systems and camera controllers to provide the data communication link to the DCN Next Generation. Transparent data transport between data communication boards in the DCN Next Generation system is possible, i.e. for remote control of slide projectors, lights, blinds, projection screens etc. It is intended for mounting in external equipment, and includes an RS232 communication port with a baud rate of 9600 or 1200 baud - selectable by an onboard dip switch. Opto-couplers isolate it from the DCN Next Generation system. It can be powered by DCN Next Generation system supply or an external power source. Other function is to control indicators to show speak slowly and help request from interpreters. When the interpreter presses the speak slowly or help button another output control of the DDB is activated, which can control an indicator of the chairman or operator's position.

Functions

Controls and Indicators

- Initialization button with LED indication

Interconnections

- 2 m (78.7 in) cable terminated with a molded six-pole circular connector
- Multi-pole PCB connector for:
  - External initialization button and LED
  - 8-bit parallel data input and output
- Nine-pole D-sub socket for RS232 output

LBB 4410/00 Optical Network Splitter

Features

- Redundant network connection
- Powered externally (48 VDC) or from the CCU
- External power is not fed into the main cable run
- Automatically powered from the external power supply
- Maximum power feed to tap-off outlets can be reduced
- Repeater function to extend the cable length by 50 meter (164 ft)

The optical network splitter is used in conjunction with the system installation to tap off two branches from the optical network cable run.

Functions

Controls and Indicators

- Power on indicator
- Error indicator
- 2 LEDs for diagnostics
- Jumpers to select maximum power fed to the tap offs

Interconnections

- 2 optical network connection for main run
- 2 optical network connection for tap off
- External power supply connector

Technical Specifications

Mechanical

Mounting	2 screws in bracket
Dimensions (H x W x D)	200 x 82.5 x 28.9 mm (7.8 x 3.2 x 1.1 in)
Weight	0.3 kg (0.66 lb)

Mechanical

Color	Charcoal grey

Ordering Information

LBB 4410/00 Network Splitter	LBB4410/00

LBB 4414/10 Fiber Interface Without Address

Ordering Information

LBB 4414/10 Fiber Interface no network address, multimode	LBB4414/10

Features

- Redundant network connection
- Powered externally (48 VDC) or from the CCU
- Automatically powered from the external power supply

The fiber interface is used in conjunction with the system installation to convert from plastic optical network cable to glass optical fiber and vice versa.

Functions

Controls and Indicators

- Power on indicator
- Error indicator
- 2 LEDs for diagnostics
- 2 control inputs (for future use)

Interconnections

- 1 optical network connection for plastic optical fiber
- 1 optical network connection for glass optical fiber
- External power supply connector

Technical Specifications

Mechanical

Mounting	2 screws in bracket
Dimensions (H x W x D)	200 x 82.5 x 28.9 mm (7.8 x 3.2 x 1.1 in)
Weight	0.3 kg (0.66 lb)
Color	Charcoal grey

LBB 4416 Series Optical Network Cables

This is a special cable with 2 plastic fibers for data and audio communication and 2 copper cores for the power supply. The cable is supplied with the network connectors fitted. This cable can be used to connect the CCU to audio expanders.

The network cables are supplied in different lengths. The extension (/xx) on the type number indicates the length of the cable. Only the LBB 4416/00 is without connectors. The connectors are available separately (LBB 4417/00).

Ordering Information	
LBB 4416/00 Network Cable 100 m without the network connectors fitted	LBB4416/00
LBB 4416/01 Network Cable Assembly 0.5 m with the network connectors fitted	LBB4416/01
LBB 4416/02 Network Cable Assembly 2 m with the network connectors fitted	LBB4416/02
LBB 4416/05 Network Cable Assembly 5 m with the network connectors fitted	LBB4416/05
LBB 4416/10 Network Cable Assembly 10 m with the network connectors fitted	LBB4416/10
LBB 4416/20 Network Cable Assembly 20 m with the network connectors fitted	LBB4416/20
LBB 4416/50 Network Cable Assembly 50 m with the network connectors fitted	LBB4416/50

LBB 4417/00 Set Network Connectors (20 pcs)

The set contains 20 connectors that can be used with the network cable LBB 4416/00 to make up to ten custom cables. The cable/connector toolkit LBB 4418/00 is required for assembly.

Ordering Information	
LBB 4417/00 Set Network Connectors (20 pcs)	LBB4417/00

LBB 4418/00 Cable Connector Tool Kit

Parts Included

Quantity	Component
1	Standard cutting pliers
1	Stripping pliers
1	Crimping pliers
1	Plastic optical fiber cutting/stripping tool
1	Plastic optical fiber positioning and indent tool
1	Torx screw driver
1	Spare cutting system

Ordering Information

LBB 4418/00 Cable Connector Tool Kit	LBB4418/00
LBB 4418/50 Spare cutting system	LBB4418/50

LBB 4419/00 Cable Couplers (10 pcs)

Cable couplers are used to couple LBB 4416/xx network cable assemblies for extension.

Ordering Information

LBB 4419/00 Cable Couplers (10 pcs)	LBB4419/00

LTC 8200 Allegiant Video Switcher

Features

- 16 camera inputs and five video outputs
- Control of AutoDome® Series dome cameras
- Compact single bay construction

The LTC 8200 Allegiant Video Switcher provides automatic camera switching in conference venues. It is easily configured using the DCN Next Generation Automatic Camera Control software, and an Allegiant Keyboard. It ensures that cameras are automatically switched to cover the speaking delegate in conferences.

The LTC 8200 has 16 video inputs for connecting cameras. Either fixed or dome cameras can be connected. There are also five video outputs used to connect hall displays or monitors.

Up to four Allegiant Keyboards can be connected.

Functions

Controls and Indicators

- 48-character on-screen display

Interconnections

- 16 x BNC Video inputs
- 5 x monitor outputs
- Console, RS232 port for external PC or control interface (CCU of DCN system) - 9-pin D-type connector
- Biphase out, multiple ports (12 for LTC 8200) for camera control - removable screw terminal connection blocks.
- Keyboards, Multiple ports (4 for LTC 8200) for keyboard connection - 6-pin RS485 ports for Allegiant Keyboard use.

Technical Specifications

Electrical

LTC 8200/50

Rated voltage	220 to 240 VAC (50/60 Hz)
Voltage range	198 to 264 VAC
Power consumption	50 W

LTC 8200/60

Electrical

Rated voltage	120 VAC (50/60 Hz)
Voltage range	100 to 140 VAC
Power consumption	50 W

LTC 8200/50 and LTC 8200/60

Video input signal	0.5 Vpp to 2 Vpp (composite negative sync.)
Gain	Unity ± 2 % (75 W)
Video bandwidth (-3dB)	25 MHz

Mechanical

Mounting	Rack mounting brackets included
Dimensions (H x W x D)	40 x 440 x 305 mm (1.7 x 17.3 x 12 in)
Weight	4 kg (8.8 lbs)

Ordering Information

LTC 8200/50 Allegiant Video Switcher rated voltage 220 to 240 VAC (50/60 Hz)	LTC8200/50
LTC 8200/60 Allegiant Video Switcher rated voltage 120 VAC (50/60 Hz)	LTC8200/60

LTC 8555/00 Allegiant Keyboard

Features

- Full-function, ergonomically-designed keyboard
- Variable speed joystick control
- 48-character on-screen display

The LTC 8555/00 Allegiant Keyboard is used with the LTC 8200 Allegiant Video Switcher. It provides a convenient means of operating and configuring the switcher. It is equipped with a variable-speed pan and tilt joystick control for positioning cameras, and also has an attractive screen for displaying camera information.

Functions

The Allegiant Keyboard and Allegiant Video Switcher are used with the DCN Next Generation Automatic Camera Control software. A range of Allegiant Keyboard accessories is available, including a keyboard extension cable, keyboard extension kit and keyboard rack mount kit.

Controls and Indicators

- Joystick control
- On-screen display

Technical Specifications

Mechanical

Dimensions (H x W x D)	51 x 220 x 155 mm (2 x 8.7 x 6.1 in)
Weight	0.55 kg (1.2 lbs)

Ordering Information

LTC 8555/00 Compact Full-function Keyboard variable speed joystick	LTC8555/00

LTC 5136 Autodome Controller

Features

- Full-function, ergonomically-designed keyboard
- Variable speed joystick control

This AutoDome® Controller provides the same functionality as an Allegiant Keyboard and Allegiant video switcher to configure and control a Bosch AutoDome® system. It is required in DCN Next Generation systems with Direct Camera Control to preposition an AutoDome® system. The AutoDome® is temporarily connected for this purpose to the AutoDome® Controller for setting the prepositions as required for the different DCN Next Generation microphone units. After positioning the settings, the AutoDome® system is connected to the DCN Next Generation CCU. The AutoDome® Controller is also needed to change the programmed pre-positions when required.

Functions

Controls and Indicators

- Joystick control
- On-screen display

Technical Specifications

Electrical

LTC 5136/51	
Rated voltage	220 to 240 VAC (50/60 Hz)
Voltage range	195.5 to 253 VAC
Power consumption	6 W

LTC 5136/61	
Rated voltage	120 VAC (50/60 Hz)
Voltage range	105 to 132 VAC
Power consumption	6 W

Mechanical

Dimensions (H x W x D)	101 x 220 x 155 mm (4 x 8.7 x 6.1 in)
Weight	0.55 kg (1.2 lbs)

Ordering Information

LTC 5136/51 Autodome Controller with 16 outputs for AutoDomes or for Allegiant Receiver/Drivers units, 230 VAC, 50/60 Hz	LTC5136/51
LTC 5136/61 Autodome Controller with 16 outputs for AutoDomes or for Allegiant Receiver/Drivers units, 110 VAC, 50/60 Hz	LTC5136/61

G3A Series AutoDome System

Features

- Integral camera pan/tilt and receiver/driver system
- 360 degrees observation
- High-speed pan/tilt operation
- Up to 99 prepositions

The G3A Series AutoDome System allows total observation of a large area with a single camera system. The system, with its built-in camera, driver and integral highspeed pan and tilt, provides 360° observation. It is possible to program the system with up to 99 pre-positions.

Functions

The Bosch G3A Series AutoDome System is ideal for conference venues. Its powerful auto-focus zoom lens allows it to produce clear, close-up shots of speaking delegates, in all sizes of congress venue. The high-speed pantilt operation means it can quickly switch positions, and the 360° angle of operation means all seating positions can be covered. It is comprised of a camera/lens module, a backbox/ power supply module and a dome module. The dome system is a compact, lightweight system containing a high-performance 1/4-inch color CCD camera with an 18:1 auto-iris, auto-focus zoom lens. Additional zoom power is provided by a 12 x digital electronic zoom. Integral high-speed pan/tilt and variable speed operation allow accurate, high-speed camera positioning. The camera, lens and pan/tilt module can easily be removed from the domed enclosure to simplify installation and service. The cameras can be either suspended or in a pendant mount. The camera/lens modules are available in two versions, the in-ceiling AutoDome kit for PAL/NTSC and pendant AutoDome kit, including wall mount for PAL/NTSC.

Direct Camera control

The DCN Next Generation can also be used in the Direct Camera Control (DCC) mode. A single AutoDome system is then directly connected to a CCU for automatic camera control. The video output of the AutoDome system is connected to a monitor or other video display device. The DCC mode is available both for DCN Next Generation stand-alone systems without a control PC and for DCN Next Generation systems with control PC. Setting AutoDome system pre-positions in DCN Next Generation systems with DCC requires use of AutoDome controller, both for DCN Next Generation stand-alone systems and PC-controlled DCN Next Generation systems. The DCC mode can only be used in combination with:

- a Bosch AutoDome
- Central Control Unit DCN-CCU or DCN-CCUB

Technical Specifications

	G3ACS5C	G3ACPW2CW
Camera type	In-ceiling	Pendant
TV standard	PAL	PAL
Power	24 VAC / 50 Hz	230 VAC / 50 Hz
Clear bubble	Yes	Yes
Power supply	No transformer included. Use PSU TC220PSX-24	Transformer included in Wall mount

For more information about cameras, refer to the CCTV Data Book

Ordering Information

G3ACS5C Color AutoDome Kit 18x color, indoor drop ceiling, clear dome, 24 VAC, 50 Hz	G3ACS5C
G3ACPW2CW Color AutoDome Kit 18x color, indoor pendant, wall mount, clear dome, white, 230 VAC, 50 Hz	G3ACPW2CW

LTC 0455 Series Color Camera

Features

- 1/3-inch format CCD imager
- High sensitivity
- Easy to install
- Accepts AC or DC voltages

The LTC 0455 series are compact rugged, 1/3-inch image format digital color CCD cameras. They are ideal for overview cameras in conference venues. Their superior sensitivity, high resolution and picture quality provide optimal performance in virtually all situations. The LTC 0455 cameras also come with a lens wizard that automatically detects the type of lens installed and provides an OSD guide that allows the installer to easily adjust the lens level and focus without special tools or filters.

Functions

Bilinx Technology

The LTC 0455 series cameras incorporate Bilinx. Bilinx is a bidirectional communication capability embedded in the video signal of all Bosch Dinion cameras. With Bilinx technicians can check status, change camera settings and even update firmware from virtually anywhere along the video cable. Bilinx reduces service and installation time, provides for more accurate set-up and adjustment, and improves overall performance. In addition, Bilinx uses the standard video cable to transmit alarm and status messages, providing superior performance without additional installation steps.

Technical Specifications

Electrical

Model No.	Rated Voltage	Voltage Range	System
LTC 0455/11	12 VDC 24 VAC 50 Hz	10.8-39 VDC 12-28 VAC 45-65 Hz	PAL

Electrical

LTC 0455/21	12 VDC 24 VAC 60 Hz	10.8-39 VDC 12-28 VAC 45-65 Hz	NTSC
LTC 0455/51	230 VAC 50Hz	85-265 VAC 45-65 Hz	PAL
LTC 0455/61	120 VAC 60Hz	85-265 VAC 45-65 Hz	NTSC
Power Consumption		4 W, excluding lens	
Imager		Interline transfer CCD, 1/3-inch image format	
Active Pixels			
PAL Models		752 H x 582 V	
NTSC Models		768 H x 494 V	

Mechanical

Connectors	- Video Output: BNC - Video/DC-iris connector: 4-pin EIA-J
Power	
LTC 0455/11 and LTC 0455/21	Push type connectors, polarity independent, isolated from video output terminals
LTC 0455/51	2-wire power cord with Euro plug
LTC 0455/61	2-wire power cord with polarized plug
Camera mounting	Top and Bottom, 1/4-inch 20 UNC
Lens mounting	C and CS
Dimensions (H x W x D)	58 x 66 x 122 mm (2.28 x 2.6 x 4.8 inch) including connectors
Weight	0.45 kg (0.99 lb)

For more information about cameras, refer to the CCTV Data Book

Ordering Information

LTC 0455/11 Color Camera 1/3-inch, 540 TVL, PAL, DSP, 12 VDC/24 VAC, 50 Hz	LTC0455/11
LTC 0455/21 Color Camera 1/3-inch, 540 TVL, NTSC, DSP, 12 VDC/24 VAC, 60 Hz	LTC0455/21
LTC 0455/51 Color Camera 1/3-inch, 540 TVL, PAL, DSP, 230 VAC, 50 Hz	LTC0455/51
LTC 0455/61 Color Camera 1/3-inch, 540 TVL, NTSC, DSP, 120 VAC, 60 Hz	LTC0455/61

MON152CL 15-inch Color LCD Flat Panel Display Monitor

Features

- Provides 500 TV lines of resolution
- Y/C (S-video) and loop-through video and audio inputs
- Analog VGA input
- Space saving, compact design
- 50% Less power consumption than conventional CRT monitors
- NTSC and PAL formats
- Picture-in-picture feature
- Universal power source
- Front panel control lockout
- On-screen display (OSD) for setup and adjustment

The MON152CL is a high-resolution, high performance liquid crystal display (LCD) video monitor. It can be used as an operator display with the DCN Automatic Camera Control software. Available in an ergonomic, aesthetically pleasing design, this state-of-the-art monitor includes a 38-cm (15-inch) color thin film transistor (TFT) active matrix LCD panel with 1024 by 768 pixels.

Technical Specifications

Electrical

Rated Voltage	120/230 VAC, 50/60 Hz
Voltage Range	90 to 264
Power at Rated Voltage	38 W
Sync Format	PAL/NTSC
LCD Panel	TFT LCD
Screen Size (H x V)	304.1 x 228.1 mm (12 x 9 in.)
Viewable Picture Area	38 cm (15 in.) measured diagonally
Pixel Pitch (H x V)	0.297 x 0.297 mm
Resolution	1024 x 768 pixels; 500 TVL typical

Electrical

Aspect Ratio	4:3

Mechanical

Cabinet	Material: ABS94V0 plastic Finish: Charcoal
Dimensions	
LCD Panel with Base (W x D x H)	391 x 183 x 395 mm (15.4 x 7.2 x 15.6 in.)
LCD Panel Only (W x D x H)	391 x 70 x 306 mm (15.4 x 2.75 x 12 in.)
Weight	LCD panel with base: 4.9 kg (10.8 lb) LCD panel only: 3.6 kg (8.0 lb)

For more information about monitors, refer to the CCTV Data Book

Ordering Information

MON152CL 15-inch Color LCD Flat Panel Display Monitor 38 cm (15 in.), PAL/NTSC, 500 TV lines of high resolution, PIP, CVBS, VGA and audio, 120/230 VAC, 50/60 Hz	MON152CL
MON151PS Power Supply for remote powering of one (1) MON151CL, or one (1) MON152CL or for one (1) MON171CL, 120/230 VAC, 50/60 Hz	MON151PS
MON151RK Rack Mount Kit for one (1) MON151CL or for one (1) MON152CL; Height: 31.12 cm (12.25 in.), Width: 48.26 cm (19 in.)	MON151RK

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DCN-DISBDD Buttons Dual Use (10 sets) 17
DCN-DISR Rims for Discussion Units 16
DCN-FCS Flush Channel Selector 49
DCN-FEC Flush End Cap (50 pcs) 50
DCN-FHH Hand Held Microphone 44
DCN-IDESK Interpreter Desk 35
DCN-MICS/L Pluggable Microphone Short/Long Stem 15, 37
DCN-SWSMV Synoptic Microphone and Voting Software 29
DCN-WAP Wireless Access Point 19
DCN-WCCU Wireless Central Control Unit 20
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Tradition of quality and innovation

For over 100 years, the Bosch name has stood for quality and reliability. Bosch Security Systems proudly offers a wide range of fire, intrusion, social alarm, CCTV, management and communication systems and components to help you find the solution for any application. We are the global supplier of choice for innovative technology backed by the highest level of service and support. When you need solutions you can rely on, choose Bosch.

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CO-EH-en-05_F01U517474_04